



HENRY A. MORSS, '93
President of the Alumni Association

technology review

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ROBERT E. ROGERS, *Editor*, Massachusetts Institute of Technology, Cambridge, Mass.

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THE COUNCIL WINDS UP FOR THE SEASON

Reports and elections—the recapitulation of an active
and successful year

A SANE and heartening speech by the new president of the Alumni Association, Henry A. Morss, '93, and a story of absorbing interest of his travels in England and the trenches by George B. Glidden, '93, who is back in this country after a tour of inspection in the interests of the Liberty Loan, were the features of the closing meeting of the Alumni Council at the Engineers' Club after dinner on May 27.

It was, as usual, the annual business meeting, and the program of the evening consisted largely of committee reports and elections. The meeting was well attended both by outgoing and incoming members. President Hart presided, having on his right the new executive, who later in the evening, in response to Mr. Hart's welcome and introduction, spoke concerning the duty of Technology men both as alumni and as citizens in these days of sacrifice and strain.

It was decided on recommendation of the Executive Committee that since there was to be no Commencement this year, and therefore no Pop Night or other formal welcoming of the senior class into the body of the alumni, it would be well to invite as many of the alumni as wished, to visit the Institute on the afternoon of Tuesday, June 11, to see the tank, the aviators drilling, and to inspect the Institute's war activities. An account of that afternoon will be found on another page.

Also on the recommendation of the Executive Committee the Council was asked to send to that committee suggestions for

representatives on the Council from local associations, representatives which the committee is to appoint for the next season.

The vote on the three members to be elected to the Nominating Committee for the next three years elected the following men: Francis R. Hart, '89; Joseph H. Knight, '96; and Grosvenor D' W. Marcy, '05.

The new members nominated for various committees in the coming years and elected unanimously by the Council are:

Assemblies, O. B. DENISON, '11, till 1923.

Permanent Funds, FRANK A. MERRILL, '87, till 1921.

Technology Review, DONALD G. ROBBINS, '07, till 1923.

Historical Collection, JAMES P. MUNROE, '82, till 1923.

There had also been a Special Nominating Committee appointed to make recommendations for the Advisory Council on Undergraduate Activities. This committee Mr. Allen reported for as follows:

"The Special Nominating Committee appointed at the March meeting of the Alumni Council presents the following nominations as recommendations for the Alumni Advisory Council's Undergraduate Activities for the coming year.

ATHLETICS

CARL GRAM, '09, to serve until 1921.

UNDERGRADUATE PUBLICATION

PAUL C. LEONARD, '17, to serve until 1923.

"TECH SHOW"

J. I. FINNIE, '09, to serve in place of Alexander Macomber, '07, until 1920.

GEORGE B. GLIDDEN, '93, to serve until 1921.

MUSICAL CLUBS

ALLEN ABRAMS, '15, to serve until 1921.

FINANCE AND BUDGET COMMITTEE

"In view of the fact that all members of the present Finance Committee have entered the service of the United States or have left the vicinity of Boston and in view of the fact that the war conditions existing make a temporary scarcity of men who can

serve on these committees with efficiency, the committee recommends that the Budget and Finance Committees be consolidated into one committee to serve until the annual meeting in 1919, and that this committee be made up as follows:

BURSAR, H. S. FORD, to serve until 1921.

H. E. WORCESTER, '97, to serve until 1920.

M. L. EMERSON, '04, to serve until 1919.

Respectfully submitted,

GEORGE L. GILMORE,

PAUL C. LEONARD,

LAWRENCE ALLEN, *Chairman.*"

After this report had been adopted Dr. Rowe called the attention of the Council to the fact that the recent entry into service of Dr. Rockwell, '96, left the Advisory Council on Athletics short one member, and nominated Lawrence Allen, to fill the vacancy. The Council so voted.

Following the main report, that of the Secretary-Treasurer, the following reports were read and approved: The Alumni Fund, the Runkle Memorial (progress); M. I. T. Committee on National Service; Assemblies: Dues and Memberships: Permanent Funds TECHNOLOGY REVIEW: the various Advisory Councils on Athletics, Finance, "Tech Show," Publications, Musical Clubs; and, finally, the Auditing Committee.

A pleasant and encouraging feature of Mr. Rollins' report on the National Service Committee occurred during his mention of the Tech Bureau in Paris, at which time he read some real undergraduate letters concerning Rev. George C. Gibbs, '00, which showed that the committee had made no mistake in sending him over. See page 408.

Another pleasant feature of the dinner was the presence of two representatives of the class of April 20, of the Army School of Military Aeronautics quartered in the Civil Engineering wing of the Institute. This class had, it seemed, become so proud of being Institute men that they had formed a plan for an Alumni Association of the military aviators trained at Tech, and they came to the dinner to bring greetings and receive them and to ask help for affiliating their Alumni Association with the parent body. This cheerful interlude, for everybody appreciated the friendliness the men showed, particularly one who was a Frenchman, put the company in good humor for the dryer business which followed.

But the best part of the evening was George Glidden's long story of what he saw in France and England when he went to get ammunition for the Liberty Loan drives. It cannot be reproduced; its value lay largely in the way Mr. Glidden told it. But all who heard the stories of Mr. Glidden and the food problem in England, of the blonde girl in the air-raid shelter, of how it feels to be shelled, to ride in a battle plane, to live in the citadel under Verdun, to take tea with Baroness Astor without sugar, as well as the more serious and inspiring part of his talk, will not soon forget it. He couldn't talk long enough for the diners. It was a fine ending to a meeting recapitulating a successful year of Technology activity in the war . . . this simple, humorous, forcible story of the war as seen by one Tech man.

R. E. R.

STILL BUILDING

CONSTRUCTION was begun in May on a new cruciform building of wood to be devoted to the needs of the Navy Aviation Detachment. This is to be a structure of which the nave will be 130 feet in length and the transept, which will have a clerestory, will be 100 feet, the two-story-short section making a curious effect of a church plan. The ends of the nave will be devoted to a rigging school and a navigation school, respectively, while the big two-story transept will have galleries for aerial observation. The new building is situated in the angle between the new navy seaplane hangar and the du Pont aerodynamic laboratory, and will obscure the view of the former from Massachusetts Avenue, it is expected to be ready before July 1. Technology is also at work on a subterranean structure for inflammable materials and two small supplementary heating plants. The new machine gun pit is ready for use. Still other buildings of important nature in the schools for the government are under consideration, but the plannings have not yet been determined upon.

REPORT OF THE SECRETARY-TREASURER FOR THE YEAR 1917

MEMBERSHIP: The membership of the Alumni Association on December 31, 1917, was 7,554, made up of 6,256 graduates and 1298 elected members of whom 343 are life members. In addition to these there are four honorary members, a loss of one in the death of Ex-President Crafts. The year's gross increase was graduates 315, elected members 45; 250 were dropped for non-payment of dues, leaving a net increase in membership of 70 members.

During the past year dues were received from 4,012 members, 55.6 per cent of our membership. This compares with 56.5 per cent of 1916, a loss of about 1 per cent.

ATTENDANCE: The average attendance at the Council meetings during 1917, was 46. There were 7 Council meetings held. On account of the war and demands upon the time of members of the Council, the December meeting was omitted. The February and April meetings have also been omitted for the same reason.

REPORTS OF THE YEAR: A special committee was appointed to consider the question of a student tax, which was presented by undergraduates and endorsed. The committee made a report in favor of a student tax which was transmitted to the Corporation. It is interesting to note that the student tax was approved and has been in effect during the present school year. The annual report of the Alumni Advisory Council on the Budget speaks of this.

POLICIES AND EVENTS: During the past year, the change in the year of the administration has taken place. The officers of the past administration have continued their service until this meeting.

It has been voted to incorporate the Association and steps are being taken toward the incorporation.

A plan is now effective by which the Executive Committee of the Alumni Association, after a certain period may nominate and elect representatives on the Council for the Local Associations. Each local association has the opportunity of naming its representative on the Council, but failing to do this by May of

any year, may have presented to them by the Executive Committee the nomination for a representative on the Council.

During the past year a convention to consider the topic of Human Engineering was discussed, but on account of the war it was indefinitely postponed.

Last year instead of holding the usual Pop Concert which has been held at graduation time for so many years, the alumni were invited to be present at the graduation exercises of the Class of 1917, at which time the two flagpoles given by the Classes of '85 and '92 were dedicated. Professor Talbot spoke for the Class of '85 and Mr. John A. Curtin spoke for the Class of '92. The Alumni Association provided a military band for these exercises and the alumni present inspected the new buildings of the Institute.

During the past year, Mr. Litchfield, the field manager and also editor of THE TECHNOLOGY REVIEW, tendered his resignation because of national service and also resigned as representative of his class on the Council. Upon the acceptance of this resignation Mr. Litchfield was elected an honorary member of the Council.

At the suggestion of Mr. Litchfield, the Council through the Committee on Publication of THE TECHNOLOGY REVIEW, was pleased to elect Prof. Robert E. Rogers editor of the REVIEW.

A change in the publication has taken effect whereby the usual monthly numbers of the magazine have been omitted and the publication is confined to the quarterly or magazine numbers. During the year the Alumni Association has coöperated to a great extent with the student publication, *The Tech*, which is now published twice a week.

While a new field manager has not been appointed, the Alumni Association has had representatives visit local associations. Mr. Ritchie visited a few; Professor Pearson last summer visited some, and Professor Allen represented the Council at meetings of the local associations between here and the Mississippi River, from as far north as Minneapolis to as far south as Cincinnati.

WAR ACTIVITIES: The April, 1917, meeting of the Council was devoted to the topic, What Technology is doing in War Times, and at that time Doctor Maclaurin, Professor Peabody, Major Cole, Captain Downing and representatives of the student body rehearsed for the Council what had already been attempted in the brief period of the war. The October meeting was also

devoted to a report of Technology war activities. A full account of the war activities of the Institute was given by Professor Allen in his trip in January, 1918, to the local associations.

Upon adjourning for the summer, last year, the Committee on the Mobilization of Technology's Resources was authorized by vote of the Council to appoint an auxiliary committee which might organize at all centers where there are Technology men, in order that a group might be ready to help those whose husbands are Tech men and are in the service of the government.

At the Cleveland convention of the Technology Clubs Associated in April, 1917, a committee was appointed which was to have headquarters in Washington to assist Technology men in placing themselves in the proper service of the government. This committee was merged with the Committee on the Mobilization of Technology's Resources, and there was formed the M. I. T. Committee for National Service. The office was maintained in Washington until the end of January, 1918, when, because of the Personnel Officers appointed by the various departments of the government it seemed unnecessary to maintain a separate Technology office.

Through the kindness of a friend of Technology, Ambulance 754 in France bore the name of the Massachusetts Institute of Technology. The same friend of Technology sent Mr. Lansingh to Paris to organize a club for Technology men in service. Mr. Lansingh went, however, at his own request, with the understanding that the scheme might be coöperative and that his efforts might be joined with those of other colleges. This resulted in the establishment of a Technology Club, which was so well founded that it was taken over by the American University Union as the foundation of that organization. THE TECHNOLOGY REVIEW for April, 1918, tells of the American University Union.

TECHNOLOGY FUND FOR NATIONAL SERVICE: In support of these war activities an interesting fund has been raised known as the Technology Fund for National Service, to which members of the Corporation are generously contributing as individuals, to the amount of \$1100 a month. The alumni were circularized and they are contributing, some by monthly payment, others in a lump sum, so that on December 31, 1917, the fund amounted to \$20,675 and now amounts to \$34,828.

From this fund there has been paid to the

Halifax Relief Committee.....	\$500.00
M. I. T. War Service Auxiliary.....	9,600.00
American University Union.....	2,200.00
Washington Office.....	800.00
Records of M. I. T. Men in Service.....	1,200.00
<i>The Tech</i>	1,400.00

WAR RECORDS: The alumni have been circularized and asked to make reports to headquarters concerning national service, both civil and military, of other men as well as themselves, and these replies have been carefully recorded with the source of information. Requests for information concerning the war work of students who have left the Institute since war was declared have been sent to parent or guardians. Both an alphabetical and class catalogue have been arranged. The alumni office is coöperating with the M. I. T. War Auxiliary and with the management of *The Tech* in compiling this information. It has been the experience of those concerned with the War Records of other colleges that the best results can be obtained by making haste slowly. In the December number of THE TECHNOLOGY REVIEW there was published a list of M. I. T. men in service up to that time, with the purpose of obtaining additions and corrections.

The following is a report of the M. I. T. men in service as reported by the M. I. T. War Service Auxiliary, May 17, 1918: In service, 2253; In foreign service, 557; In aviation, 378; In navy, 452; Officers, 1472; O. T. C., 137; Inspectors or Instructors, 107; In Ambulance, Red Cross and Y. M. C. A., 55; Deaths, 32.

FINANCES: The state of the finances of the Association is shown by the report of the auditors employed by the auditing committee. The report shows that the income of the year, exceeded the expense by about \$900; but, with the accumulated deficit of the previous years, amounting to about \$500, the surplus account shows a balance of about \$400. This surplus is due to the omission, on account of the change in by-laws, of the annual ballot, which was postponed until March, 1918. This ballot costs almost \$400, hence the administration of the past year, while it did not carry out the usual annual ballot gave to

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the present administration a surplus sufficient to care for this annual item.

It has been the policy in collecting dues for this calendar year not to send second notices to men in service. It is likely that the income from dues will be considerably less this year on account of the number of members in service.

STATEMENT

December 31, 1917.

RESOURCES

Cash.....	\$14,994.99
Accounts receivable.....	1,309.01
Furniture, etc.....	590.30
Inventories.....	822.47
	<hr/>
	\$17,716.77
Surplus.....	402.64
	<hr/>
	\$17,314.13

LIABILITIES

Accounts payable.....	\$1,183.80
Life membership.....	100.00
Payments in advance.....	109.00
Reunion, 1916.....	90.08
Class of 1917.....	107.03
Society Technology Architects.....	171.85
Alumni Fund for National Service.....	10,257.55
Corporation Fund for National Service.....	5,294.82
	<hr/>
	\$17,314.13

EXPENSE

Secretary's salary.....	\$500.00
Labor.....	1,862.79
Postage and printing.....	1,035.19
Stationery and supplies.....	279.62
Carfare, express, etc.....	39.81
Collection expense.....	3.13

Council expense	\$82.65
Telephone and telegraph	29.58
Miscellaneous expense	232.43
Banquet	81.20
Tech Show	21.00
Commencement Day	120.00
Field manager	103.48
Editor's salary	1,000.00
Advertising manager	100.00
Review, Labor, Alumni Association	550.61
Review, paper	2,355.21
Review, printing and mailing	4,325.23
	<hr/>
	\$12,721.93
10 per cent depreciation	65.58
	<hr/>
	\$12,787.51

INCOME

Sustaining membership	\$1,662.00
Dues	4,012.00
Back dues	376.50
Interest and discount	165.84
Gifts	10.33
Profit on labor, etc.	760.49
Review, subscriptions	3,645.00
Review, advertising	2,977.13
Review, other income	62.56
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	\$13,671.85
Expense	12,787.51
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Excess of income over expense	\$884.34
Previous deficit	481.70
	<hr/>
Surplus, January 1, 1918	\$402.64

WALTER HUMPHREYS,
Secretary-Treasurer.

REPORT OF TREASURER OF ALUMNI FUND OF 1912

LIABILITIES

*Subscriptions to October 1, 1917 (previous report)...	\$490,099.43
Additional to January 1, 1918.....	52,799.35
Total subscriptions.....	\$542,898.78
Net income to October 1, 1917 (previous report)....	\$22,481.77
Additional to January 1, 1918.....	133.33
Total income.....	\$22,615.10
Total Fund.....	\$565,513.88

ASSETS

Cash in First Nat. Bank, open account (2 per cent)..<	\$55,841.82
Expended, educational equipment (appropriated).....	340,000.00
Expended, Walker Memorial.....	110,000.00
Expended, dormitories.....	40,000.00
Expended, Reunion, 1916.....	19,672.06
	\$565,513.88

Respectfully submitted,

(Signed) H. S. FORD, *Treasurer, Alumni Fund.*

January 1, 1918.

REPORT OF THE COMMITTEE ON PERMANENT FUNDS

THE accounts of the Committee on Permanent Funds have been audited by the certified public accountants employed by the auditors of the Association.

During the year 1917, there was loaned from the Rogers Scholarship Fund, \$2175 to eighteen men, compared with \$3125 loaned to thirty-six men in 1916. \$1500 was paid on former loans by twenty men.

The following is a statement of the accounts of the committee:

Cash on hand, January 1, 1918.....	\$1,542.26	
Stocks and bonds.....	18,895.00	
Personal accounts.....	9,250.00	
Income in suspense.....	300.00	
Rogers Scholarships Fund, capital.....		\$10,424.78
Rogers Scholarships Fund, loan account.....		10,398.45
Life Membership Fund.....		8,138.36
Alumni Fund of 1880.....		1025.67
January 1, 1918.....	\$29,987.26	\$29,987.26

*\$20,000.00 paid to M. I. T. October 13, 1913.

THE NEW OFFICERS OF THE ALUMNI ASSOCIATIONS

THE canvass of the annual ballot resulted in the election of the following officers for the year May, 1918, to May, 1919.

There were 1140 ballots cast for: President, for one year, Henry A. Morss, '93; Vice-President, for two years, Van Rensselaer Lansingh, '98; Secretary-Treasurer, for one year, Walter Humphreys, '97; Executive Committee, for two years, Orville B. Denison, '11, Charles R. Main, '09; Executive Committee, for one year, Grosvenor D'W. Marcy, '05; Representatives-at-Large on the Council, for two years, Wilfred Bancroft, '97, Frank Cheney, Jr. '82, Raymond W. Ferris, '08, Stanley G. H. Fitch, '00, B. F. W. Russell, '98.

The following were nominated for Term Membership on the Corporation: Paul W. Litchfield, '96, Arthur D. Little, '85, Eben S. Stevens, '68.

The following were elected to represent their respective classes on the Council, for the next five years: Howard A. Carson, '69, George H. Barrus, '74, Charles S. Gooding, '79, Harry W. Tyler, '84, Henry Howard, '89, Samuel C. Prescott, '94, Hervey J. Skinner, '99, Merton L. Emerson, '04, Carl W. Gram, '09, Charles Parker Fiske, '14.

AVIATORS RAISE \$500,000 TO BUY BONDS

THE naval aviators at the Institute Ground School have subscribed something more than \$500,000 to the third Liberty Loan. This contribution comes from less than seven hundred men, all of whom are now in the service of their country.

The receiving ship, where the men report on arrival, caught the spirit of the school to such a degree that \$120,000 was raised among the two hundred men on the ship.

An honor flag now flies from the staff on the drill grounds adjoining the Walker Memorial Hall, showing that the aviation students have far exceeded their quota.

HOG ISLAND

The greatest shipyard in the world—officered and manned
by Technology men

BY W. H. BLOOD, JR., '88

THE construction of the new shipyard at Hog Island, near Philadelphia, has attracted the attention of the country, and very naturally, for it is the largest shipyard in the world, and it has been built almost overnight. When the contract was signed on September 13 last year, Hog Island was a desolate waste, ten miles from Philadelphia and practically inaccessible. Today, it is a shipyard 90 per cent completed, with 50 ways and 28 outfitting berths. It has ships under construction on 30 of the ways and before the summer is over launchings will begin.

This enterprise is of particular interest to the readers of this journal because Technology men are largely responsible for its conception and its execution. Charles A. Stone, '88, president of the American International Corporation, and George J. Baldwin, '77, senior vice-president of the American International Corporation, presented to the United States Shipping Board, Emergency Fleet Corporation, early last summer, a proposition to help out the government by constructing a fabricating shipyard in which the quantity production of standard ships could be carried on. It was a bold idea, for up to this time ships had always been made to order. This scheme was to make ships as automobiles are made, by having all the parts manufactured in already established shops and factories all over the country, then to gather them at one place and to assemble them there. After some delay the plan was accepted by the Shipping Board and a contract was executed which aggregated about \$200,000,000, the largest single contract ever executed in the history of the world.

A new company, known as the American International Shipbuilding Corporation, was formed at the suggestion of the government, to carry on the work, and D. P. Robinson, '92, was selected as president, H. L. Rogers, '93, and F. W. Wood, '77, were elected vice-presidents. Mr. Wood was formerly president of the Maryland Steel Shipbuilding Plant at Sparrows Point, Md. There are many other Technology men who have been or who are connected

with this work and the following list of names (which probably is not complete) has been gathered by the writer: C. F. Wallace, '92; D. E. Maxfield, '00; E. G. Allen, '00; W. Fred Davidson, '01; S. B. Tuell, '03; H. T. Winchester, '03; William P. Bearce, '06; L. S. Goodman, '07; Joseph Pope, '08; George Schobinger, '08; W. L. DuBois, '09; C. A. Johnson, '09; W. K. Brownell, '10; S. C. Sargent, '12; E. H. Schell, '12; A. F. Brewer, '12; Joseph K. Pearson, '18; Harold L. Miller, '18; P. Strang, '18; Donald Levering, '19; Frederick C. Spooner, '19; Kenneth Wood, '19; H. T. Dennison, '20; M. C. Hall, '20; W. K. Avery, '21; A. H. Stevens, '21. The writer is also "doing his bit."

The corporation bought nearly 900 acres of land for which it paid about \$1,700,000 of its own money, as the government had no funds available for this purpose. The corporation further agreed to build the shipyard at actual cost, not cost plus a percentage or even cost plus a fixed fee, but it asked simply to be reimbursed for all expenditures of labor and material. The corporation even assumes its own overhead costs of all kinds; the government does not pay these nor any fee of any kind.

The 50 shipways, which are now complete, stretch out for $1\frac{1}{4}$ miles along the river and the outfitting piers require about as much more space, so that nearly $2\frac{1}{2}$ miles of water front on the Delaware River are used. The channel opposite is 35 feet deep. The outfitting piers, of which there are 7, are each 1,000 feet long and 100 feet wide. Alongside of each way there is a track of standard gauge and on each outfitting pier there are two. The switching and storage yards on the job require 83 miles of standard railway track. Each group of 5 ways is operated as an independent shipyard. In other words, there are 10 shipyards of 5 ways each. Each group has erected back of it its own administration building, service building, tool building and compressor plant. Operations in these buildings are, of course, directed from a central administration which controls all the operations on the island. There is in the center of the plant a group of buildings which contains the executive offices, as well as the following departments—engineering, purchasing, accounting, production, employment—and also a hospital, bank, telephone building, cafeteria, guards' barracks, jail, etc. Another group of buildings nearer the ships contains various shops,—the air tool shop, the galvanizing shop, the pipe shop, the template shop and the plate and angle shop. There is

also a group of storage warehouses extending almost a mile in length.

Outside of the yard, barracks for 6,000 men have been built, as well as various commissaries, where 13,000 meals a day are served, and there is a big Y. M. C. A. building, a hotel and various other smaller buildings.

The total area under cover amounts to about 25 acres.

A complete city has been constructed, for besides the above there have been installed 85,000 feet of high pressure water piping, 120,000 feet of domestic water piping, a complete sewerage system 13 miles in length, including Imhoff filtration tanks capable of taking care of a population of 30,000 people.

Two hundred and sixty fire hydrants have been installed and 35,000 feet of fire hose. There are 4 fire houses, each containing several pieces of motor-driven fire apparatus, which are located at strategic points in the yard, and there are on duty 100 firemen, 4 men being on duty in lookout towers 24 hours a day.

Besides the above, there are, for the protection of property, 600 armed guards sworn in as deputy sheriffs.

The telephone plant has about 2,500 stations, or what is usually required in a city of 50,000 people. There have been put under ground approximately 3,000,000 feet of electric cable, which if stretched out in a continuous line would run from Portland, Me., to Richmond, Va.

Some 40,000 electric lights make it possible to continue the work here at night as well as in the day time. Six hundred and fifty electric motors are distributed throughout the yard; air compressor plants which supply the pneumatic tools used in building the ships have a total capacity of 75,000 feet of cubic air per minute, this being the second largest plant in the world.

The Island contains a first aid hospital, a floating hospital for contagious diseases, a post office, a bank, and besides this a free weekly newspaper with an edition of about 30,000 copies is published for the men.

There is a training school with some 60 instructors and from this over 1,000 trained riveters have already been put at work upon the ships. Other trades are also taught.

Some very large shops, principally for emergency purposes, have been erected, one of them being 750 feet long and about 250 feet wide.

Although nothing but steel ships are being built in this yard, approximately 105,000,000 feet of lumber are being used, to say nothing of 145,000 piles averaging from 50 to 70 feet in length. The lumber and piles together would make a plank walk a foot wide long enough to completely encircle the globe.

The maximum number of men thus far employed has been about 26,000, and at the present time there are 23,000 at work, this entailing a pay-roll of between \$600,000 and \$800,000 per week.

It is hard to realize the size of this job, but when one stops to consider that the expenditures at Panama were \$2,750,000 per month and the expenditures here have been at the rate of \$10,000,000 a month, one begins to realize its magnitude. If Hog Island were superimposed on the city of Boston, it would cover all of the downtown district, closely following the shore line from the South Station to the North Station, and would extend into the residential district as far inland as the Great South Bay; the Common and the Public Garden would be just about in the middle of Hog Island.

The American International Shipbuilding Corporation, acting as agent for the government, is building 180 ships—110 of them are 7500 ton, 11½ knot cargo ships and 70 are 8000 ton, 15 knot combined troop and cargo ships. It is estimated that the smaller ships will cost \$1,050,000 each and the larger ships, \$1,650,000. For constructing them the corporation is paid a fixed minimum fee of \$41,000 for the smaller and \$65,000 for the larger. These fees, however, are increased if the contract delivery dates are anticipated, and in a like manner there is a clause in the contract which increases the fee if the cost is less than the estimate. These fees, if figured on a percentage basis, would be about 4 per cent, which appears to be the lowest fee ever paid by the government for shipbuilding—the usual contract prior to the outbreak of the war being a fee of 10 per cent on the actual cost of construction.

To build these ships will require the utilization of about 50,000 tons of steel per month and a total of some 90,000,000 rivets. The steel is being fabricated in 50 bridge and structural steel shops all over the country and even as far away as Canada, and the interesting part of the story is that these parts all fit; to accomplish this, however, has required an immense number of drawings and hundreds of templates, but the method of construction has been proved to be feasible without a shadow of a doubt.

In constructing this yard, the corporation has been subjected to the severest kind of criticism from ill-informed politicians, yellow journals and jealous competitors. It has had to carry on its work in a winter of unprecedented severity and in spite of inadequate housing and transportation facilities and it has been required by the government to proceed with all diligence. In spite of the unwarranted criticism a desolate waste has been converted into a shipyard in about 9 months' time and ships are being constructed at a rate never dreamed of before the war. As a result of the progress already made an additional order for 60 ships has been awarded the corporation. It is interesting to note in this connection how important a factor speed is. The commercial value of the 180 ships for rental purposes based on rates fixed by the Shipping Board chartering committee amounts to \$460,000 a day or \$14,000,000 a month. The importance of saving time in the completion of the yard as a business proposition is therefore apparent, to say nothing as to the necessity of getting these ships done for war purposes.

Beginning about the first of August the ships will begin to come off the ways and from that time on launchings will take place almost every other day. The ships will be of 7500 and 8000 ton capacity and the total output under the present contract will aggregate 1,400,000 tons, which is an extremely large factor as the total tonnage now under our flag is only about 7,000,000 tons.

Hog Island will justly earn the title of the greatest shipyard in the world, and not only all Technology men, but all good Americans will have just cause to be proud of it, for it will have done more than any other single agency to support our gallant men at the front and bring about that victorious peace for which we are all looking.

TWO NEW ALUMNI ASSOCIATIONS

THE REVIEW welcomes into the fold two new local associations, one in Niagara Falls, N. Y., the other in New Haven, Conn. Full account of their organization will be found in the "News of Local Associations."

EDUCATING THE WAR'S CRIPPLED

A sketch of the work being done by the Federal Board of Vocational Education of which James P. Munroe, '82, is vice-chairman

ALREADY, even before our wounded begin to pour into the hospitals and convalescent homes of the country, has the government taken prevision of the situation that must arise, and is taking steps to provide for it. In the scientific re-education for industry of men partially—or often badly—crippled lies the solution of this problem, never before in the history of war satisfactorily treated. And by intelligent publicity the country has been awakened to the great need and to the great work that is doing. Chief among the workers on the Federal Board of Vocational Education is James P. Munroe, '82, secretary to the Corporation, who has kindly furnished the *REVIEW* with the material necessary for this brief report of progress.

In a letter to his class secretary Mr. Munroe says:

"The first piece of news is that this Board is about to be charged with the responsibility for the retraining and putting back into industry, agriculture, commerce or the professions, as the case may be, of 'every person who is disabled' (in the war) 'under circumstances entitling him . . . to compensation under the' (War Risk Insurance Act) 'and who, after his discharge, in the opinion of the Board, is unable to carry on a gainful occupation, to resume his former occupation, or to enter upon some other occupation, or having resumed or entered upon such occupation, is unable to continue the same successfully.'

"The bill giving us this responsibility, outlining very broad powers for us and appropriating two million dollars for the current fiscal year, was passed unanimously by the Senate and House and is now in the hands of the President for signature. As it was an Administration measure, there is practically no doubt that he will sign. I am sending you a copy of the bill under separate cover, also an article of mine bearing on the problem that appeared in a recent *Survey*.

"The second piece of news is that on June 5 I was given the honorary degree of Doctor of Letters (Litt.D.) by the George Washington University. There were four other recipients, including Mrs. Larz Anderson.

"The Crippled Soldiers Bill will much more than double the work of this Board, and as a worker under the bill, I may be said to be formally engaged in direct war work, though, thank God, I don't have to put on a uniform. My experience with the Massachusetts Commission will, of course, be of great value to me in this new and highly responsible job."

But the re-education of war cripples is not the only concern of the Board. Of more lasting value, perhaps, even though of less immediate and spectacular interest, is the eternal problem of vocational education and the reform of education generally. The most inspiring and lucid statement of the Board's aims in these reforms was that delivered by Mr. Munroe himself early in the spring at the convocation exercises of George Washington University. The interest roused by the wide dissemination of that address is shown by an editorial comment by the Boston *Transcript* the next day:

"Because the present is the time to formulate an after-the-war educational program, especial interest attaches to the speech which James P. Munroe made at the convocation exercises of George Washington University. Mr. Munroe is a Boston man, long active in the promotion of vocational education and now engaged in the important work of supervising the training of technicians and mechanics for the National Army. His plea for really efficient schools, conducted on business principles, capacity use of plants, effective coöperation with the home, and education of the child not only for democracy but for a place in the social and economic world, will find many sympathetic ears. The need of just such a program is one of the lessons which the war has already taught England; presumably it will sooner or later teach the United States the same lesson; although this country will not have as hard a time carrying it out as Great Britain will have."

In the address itself, Mr. Munroe spoke with his usual clarity and eloquence concerning the thing which Technology men know has always been dear to his heart, the serious task of modern education.

"Education after the great war will no longer be, I believe, a spendthrift in itself and a praiser and promoter of extravagance.

It will be, on the contrary, an education conserving the pupil's time, his individuality and his special aptitudes and talents; it will be one that, directly and indirectly, will fix attention upon certain great fundamental wastes which must no longer be permitted, and the prevention of which is a thing worthy of the best efforts of mankind.

"The supreme acquisitive years are those between birth and majority, and in those years the physical and mental health, the character, the aims and practically the life career of the individual are for all time determined. Yet a large proportion of those precious twenty-one years are now thrown away, because of the ignorance of parents as to what education means, because of the adherence of schools to traditions which have meant nothing since medieval days; because of our fear of teaching immediately practical and useful things; because of our queer notions that work is a curse and that play has no training value; because we create vast educational plants and then use them to one-fifth of their capacity; because, in short, we do not take a human being seriously until he becomes a man, until the precious period in which he might have been made a real man and an effective citizen has irrevocably passed.

"The first lesson that education itself must learn is that it is a serious business; serious because it deals with the prime asset of mankind; a business because it has a certain definite task to do and a limited time in which to do it, and should conserve every minute and every resource of that short training period. Most current education cannot presume to call itself, however, either serious or businesslike; for it leaves four-fifths of its task to be performed haphazard, on the streets and in byways; because it still regards the child as a mechanism to be fitted into its stereotyped machinery, not as a human intellect and soul to be individually developed; because it sublimely ignores all the experience and teaching of other businesses; because, while spending a great proportion of the national revenue, it feels no obligation to render any specific returns for those expenditures, and makes no study of the efficiency of the output of its vast and costly mechanism.

"The war will almost have been worth while if, through the lessons it will teach, our complex educational systems come to realize that they must make themselves really efficient, by using their plants to capacity, by supervising the whole training of the

child, in school and out, by making use of the immense educative power both of real work and of real play; by teaching those who are to be the fathers and mothers of the future how to make homes and how to fulfil their obligations to society; by developing children into self-respecting citizens not only by training them for democratic citizenship, but by carefully helping them to make for themselves a real place in the social and economic world."

There, as Mr. Munroe says, is the ideal! That is, for the children of the future. But what of the children of the past, men of military age, now soldiers, who will come back to America either wholly or partially crippled? That is the task to which the Board is addressing itself just now. The reading public by this time has some knowledge of the work done in France and England to place its shattered men back in the industrial trenches on something like equal terms with their whole brothers. The work for the blind, the armless, the legless, we know something about. This foreign work the Board has been studying carefully until it feels that it knows something about it and can not only follow intelligently but profit by English and French mistakes and offer improvements. In the *Survey* for May 18 Mr. Munroe published a long article, fully illustrated, telling what the American method was to be.

"The problem of industrial rehabilitation," he says, "is one of the *goal*, not merely of healing and curing the body, or of teaching useless or underpaid pseudo-occupations, but of turning back into society as efficient a citizen as a maimed human being can become. It may be efficiency in an entirely different occupation from his old one, but it must be productive efficiency. Otherwise, all efforts made, "no matter how imbued with learning and good will, have not only been thrown away but actually prostituted." From this, he goes on to say, it follows that it is a task that only the government can carry out.

"Only the government has the comprehensive power to command, to organize and to make effective all the social forces which, sooner or later, must be focused upon the handicapped man in order to bring him to the desired social and industrial goal.

"Important as may be the work of coöperation on the part of states and communities, necessary as it may prove to be to mobilize the forces of private philanthropy in this far-reaching work, all those minor elements and aids can be made effective only as they

are tied into and made an integral part of the single process through which the government must undertake to restore to society in general, and to industry in particular, as effective and self-reliant a man as can be reconstructed out of the shattered thing for whose shattering the government is of course, responsible.

"In this process of reconstruction the fundamental necessities are continuity of action and definiteness of aim. The long and tedious process of physical healing and of industrial adaptation will wear down the spirit of the cheeriest patient unless there is kept clearly before him the reward of ultimate social efficiency. The methods of restoration will have not only no continuity, they will have no meaning, unless all those concerned in that restoration, from the stretcher-bearer through the surgeons, nurses and teachers of vocational therapy to those who are training the man for his old or for some new vocation, keep always before themselves, as well as before the patient, the fact that he is neither a 'victim' nor a 'derelict.' It must be impressively kept in mind that he is a normal member of society, handicapped for a time by his injury, but spurred by that handicap to make more of himself than would have been likely had he not gone through the virilizing process of service to his country and mankind.

"The usual successive stages of this continuous process from the battlefield to the moment when the man re-establishes himself, to all intents and purposes, as a normal factor in society are, roughly, these: *restoration* to life through surgical or medical treatment, or both; *bed convalescence*, with such occupations as may be possible for keeping the mind of the patient diverted from himself; *advanced convalescence*, with such mechanical and other therapies as are essential to muscular and other restoration, and with such vocational therapy as will not only assist the other therapies, but will keep the patient always headed towards industrial restoration; *vocational training* proper, in which either he is definitely retrained (under the conditions of his handicap) for his former vocation, is given advanced instruction in that vocation, or is fitted for an entirely new field of activity; *placement*, wherein with the most careful regard not only to his present abilities, but also to his future opportunities, he is so put back into industry as not to disrupt the normal industrial situation; and *follow-up*, through which those who have been responsible for restoring him to a place in the economic world see to it that, so long as he may really need

guidance and moral support, he gets it, care being taken that nothing is done to weaken his self-reliance and his self-respect.

"Fortunately, the machinery for this intelligent, continuous process of conducting the maimed soldier from the battlefield to the productive industry already exists, and is, or has the promise of being, to a high degree efficient. The plans of the surgeon-general's office for the care of the men immediately behind the line, in base hospitals, in general hospitals in Europe, and in distribution and special hospitals on this side of the Atlantic, are extensive, wisely made and under the supervision of the best surgical, medical and lay minds that the country and indeed the world can produce. The various therapies and other restorative measures, including vocational therapy, have been given unusual study during the past decade; and restorations that a few years ago would have been thought miraculous are now occurrences of every day."

Consequently the work of restoration must not be postponed too long. The man mustn't remain so long in hospital or convalescent home as to get fond of it and dread the outside world; he mustn't get into the habit of looking on himself as an "interesting case"; he mustn't be coddled or feminized, allowed to give way to self-pity, or soothe himself with amusing but useless "bedside occupation." Even bedside occupation should be a step toward ultimate industrial usefulness and skill.

Many of the men crippled will be too young to have had a settled occupation before the war, still less a skilled trade or profession; many will have in the past chosen at random occupations they are ill-suited for. The problem of choice of new occupations for these, therefore, is not as great as might be imagined. The photographs accompanying Mr. Munroe's article show how wide the choice is and what unexpected things even thorough cripples—according to the old notion—can do. Armless men running plane and saw, pitching hay, doing clerical work with typewriters; men with both arms gone training for accountants where there is writing and figuring to do; ingenious and complicated machines that can do almost everything the human hand and foot can do;—the pictures are proof enough of the possibilities.

The main emphasis of the Board, therefore, is not in training the man to do something, but to keep track of him and save him from the treatment he is only too liable to receive from a chaotic, unor-

ganized, impatient and forgetful industrial system. And to that end, Mr. Munroe points with greatest emphasis, the state must continue to look out for these men after they are thrown back into industry.

"It may be attempted to meet this problem of vocational rehabilitation by methods of segregation, colonization, or other schemes for putting the handicapped by themselves. It would seem almost superfluous to argue that one does not make an abnormal man normal by herding him with other abnormals, and that the action and reaction of a lot of handicapped men set apart by themselves would soon convert them all into physical and moral invalids with their lives given mainly to the comparison of symptoms and to multiplied bewailing of their unjust lot. The salvation of a crippled man is to put him into as close contact as possible with whole men, who will give him not only actual help in his work, but the far greater assistance that comes to the abnormal from the breezy health and strength of those who are sound in wind and limb.

"It may be attempted to undertake the work of placement for these handicapped men without proper consideration of such fundamental problems as those of general and of local labor demand; of the permanency of the proposed occupation; of the adjustment of wages, which in most cases will have to be on a lower level than that of the normal worker; of the relation of this particular problem to the larger question of industrial relations; of the legal and other difficulties involved in the conditions surrounding employers' liability insurance; of the circumstances under which the crippled men must work, etc. To make this mistake would be to nullify all that had been done in preparing the man for vocational efficiency; and the fact that such complex business problems as these stand at the end of the vocational road emphasizes anew the inadequacy of merely medical, or solely military, control for this far-reaching service.

"It may be deemed sufficient to train the returned soldier or sailor, to find him a position and then to let him shift for himself. This, again, would be practically to nullify all that had gone before. With most cases, the hardest time will be that of adjustment, when the man, released from the supervision, first of the hospital and then of the educational process, finds himself, handicapped and probably in a new occupation, confronted with the rush and indifference of the competitive world. It is at that

trying time that the man needs some one at his side to whom he may turn for advice, for courage, for help over the high hurdles of industrial adjustment. But, as has already been said, to coddle him at that time, to give him too much support, to treat him as a weakling, would be to do him the greatest of injuries. The work of 'follow-up' will prove to be one of the most complicated in the whole series of big problems connected with rehabilitation; but it is a work that must be provided for as carefully as for any of the preceding steps. On no account, moreover, must this difficult service be put into the hands of amateurs. Here, of all places, are needed the experience, the wisdom, the clear common sense of men and women who have given years to preparing themselves for this most expert task of social adjustment.

"These are a few of the dangers inherent in the work of rehabilitating the soldiers and sailors who are already coming to this country in fast increasing numbers. And after that sad procession has been sorted out, after the hopeless cases have been sent to the asylums of one sort and another that this generous country will provide, after the slightly crippled have been easily put back into industry, and after the really handicapped have been, far less easily, helped to find their best places in the economic world, there will still remain, presumably forever, the equally sad procession of the industrially crippled, the men who, whether by their own fault or by that of industry itself, have been permanently maimed and who are, for society, a charge almost if not quite as sacred as that of men crippled by war. The bases of action and the fundamental dangers to be avoided are exactly the same with these industrial cripples as with the maimed soldiers and sailors. It would seem reasonable, therefore, that practically the same machinery—except that which functions overseas—should be utilized in the rehabilitation of these victims of economic, as in restoring those victims of military, necessity. Every step in the process of training, every need for coöperation, every obstacle to be avoided and overcome—above all, everything that concerns the ultimate goal of the rehabilitation—holds exactly for one victim as for the other. And one of the ameliorations of the war will be found, it is practically certain, in the new and truly humane way in which society will in future view those industrial cripples whom, heretofore, it has either ignored or condemned to mendicancy."

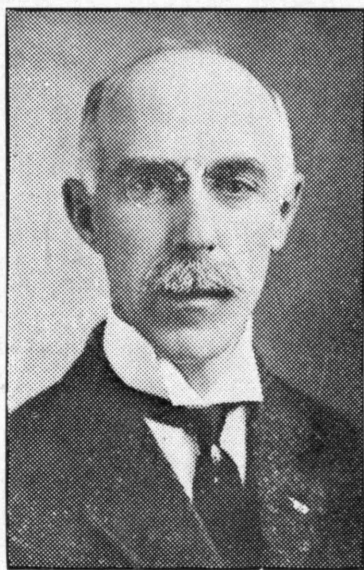
Within a year this great work, hastily outlined here but largely in Mr. Munroe's own words, will be in progress. We shall see shattered and crippled soldiers and sailors coming back to be trained for service and for citizenship. The United States is very fortunate. We did not have to be the pioneers. We can learn from France and England's successes and we can learn from their admitted mistakes. There is no reason why we should not make a perfect job of it, and so save for the American industry of the future the greater part of what in the old careless wars were the irreparable wrecks of strong men. That is the task toward which Mr. Munroe and his associates are addressing themselves.

"War work?" queries Mr. Munroe. What do the alumni think?

R. E. R.

A NEW KIND OF AVIATION SCHOOL

UNDER Prof. C. H. Peabody there is under way at the Institute still another kind of government school, a post-graduate School of Aeronautical Engineering for both army and navy officers. The course will take seventeen weeks, of which nine will be in the Technology laboratories, followed by a fortnight of observation in industrial establishments. The men will then return to Technology for a finishing course of six weeks. The regular instructing staff in Aeronautics, including Prof. C. H. Peabody and his assistants, George M. Denkinger and Warner, together with Prof. E. B. Wilson, head of the department of Physics, who lecture in Fluid Dynamics, will be supplemented by members of the department of Mechanical Engineering, George B. Haven, Harrison W. Hayward, Theodore H. Taft and instructor I. H. Cowdrey. Questions of design, propellers and aerodynamics will be cared for by the regular staff of Naval Architecture, while engine design and materials, their fitness and strength, will be cared for by the mechanical engineering men. For special lectures Lieut. Howard B. Luther, U. S. N., '08, and Thomas L. Blackmore, '17, have been detailed from Washington. The present school is the fifth kind of aeronautical school that the Institute has undertaken to aid the government in its needs.



HOWARD LINCOLN COBURN, '87 AND '98



DINSMORE ELY, '18

HOWARD L. COBURN, '87 AND '98

From *The Tech*

TECHNOLOGY men lost one of their best friends when Howard Lincoln Coburn, '98, better known as "Pa" Coburn, passed away June 18 after an attack of pneumonia. For many years he has been the undergraduates' friend and advisor, and his kindness has earned for him the name "Pa." His sympathies were real, but so, also, was his sense of justice. His candor often stung, but his kindness always healed.

Howard Lincoln Coburn was born January 13, 1867, in Patten, Me. He was graduated from Technology with the class of '87, but after a few years in business he returned and received his degree as mechanical engineer in 1898.

One of the classmates said of him:

"In his freshman year, he showed himself an earnest worker and a successful student. His talent was well balanced, free from eccentricities, social as well as technical. Every one of his associates was his friend, and these ties have ripened and become stronger with every year. His classmates naturally remember little of his efficiency in passing examinations and obtaining good marks, but they do remember his ready assistance, his determination to know why, and to press the instructing staff for an adequate reason.

"After leaving the Institute, he was employed as a draughtsman with E. D. Leavitt for a couple of years. Later, he was in a private business, and then became chief draughtsman for the A. B. Tower Company. In recent years he has been acting as chief engineer for the Ambursen Hydraulic Construction Company.

"Most of his professional work has been in hydraulic engineering. His larger accomplishments are plans for dams, ninety or more of which have been built. One of these, at Bassano, Alberta, Canada, is the longest one in the world.

"Although busy with his profession, Mr. Coburn never lost interest in the Institute, and in many ways was identified with its various developments. Probably no other man from Technology has as large an acquaintance of admiring friends."

"His ability to meet men and to put them at their ease is remarkable," said another of his friends; "he is never at a loss for

a subject of conversation, and is always keen to find the one subject of interest to his companion. He has no fear of admitting he is wrong, is positive in his opinions, but never to the point of hurting the feelings of his friends or companions; a genial companion, ready to spend his last dollar to help a friend. Coburn's friends cover the country, it might be said the world; and his correspondence with men from all parts of the world must use up a great deal of his time."

"Pa" Coburn was always as active in alumni affairs as he was recently in undergraduate affairs. He held many positions of responsibility in his class and in the Alumni Association . . . always an untiring worker for Technology and Technology men.

Many of the institutions at the Institute owe their very existence to Mr. Coburn. He assisted them in their organization, nursed them in their infancy, and when difficulties arose he was always present with his ready sympathy and kindly word of advice. He was a member of the Society of Arts, the American Society of Mechanical Engineers, Boston Society of Civil Engineers, Society for the Promotion of Industrial Education, and the National Geographical Society. He was a Mason. For the last years of his life he lived at the Technology Club of New York, of which he was one of the most prominent members.

AN APPRECIATION. BY SETH K. HUMPHREY, '98

Perhaps the thing which impresses one most in reviewing the Tech life of Howard L. Coburn was his immense acquaintance among Technology men. A host of them held him as a personal friend; and he could call by name probably twice as many Tech men as any one not connected with the Institute.

This in itself might be regarded as the highest possible tribute to his sterling qualities as a man among men, but those of us who knew him intimately through many years of association in the Technology Club of Boston were aware that his interest in Tech men was centered where it would do the most good—among the young men of the later classes, and the undergraduates. His work as advisor on *The Tech* board, during some of the most trying years of its publication, was only a starter for his devotion to Technology boys. To the lot of them he was always "Pa" Coburn—a perennial friend and advisor on any sort of problem which the lads might put up to him.

It is impossible to estimate the value of a relation of this sort to young men beset with difficulties at the starting of their careers. They, alone, can tell what they owe to "Pa" Coburn, and it is a certainty that, if they were permitted to tell it here, the REVIEW would have to get out an extra.

Perhaps the outstanding quality which most drew men to Coburn, aside from his being a naturally companionable sort of chap, was his absolute genuineness. There was not a square inch of veneer on him. It was never his habit to trim his opinions to suit anybody; as a consequence, one always knew where Coburn stood. We might not always agree with him, but he never stood for a thing which would make any honest man feel that he could not tie up to Coburn as the solidest kind of a friend. Friendships with Coburn were of the sort which grow with the passing of the years. His going over to New York a few years ago did not lose him a friend in Boston. A common question asked whenever one of the Boston fellows returned from a trip to New York was, "Did you see 'Pa' Coburn?"

Speaking of him more intimately, I think few of the fellows realized that Coburn's deafness was as real a thorn in the flesh as any other physical handicap—a thing always in evidence, forever in the way. A few of us know that it denied him an unembarrassed association with women, and kept him from accepting those invitations to homes which ordinarily lighten a bachelor's existence. Not many knew that Coburn felt this, because he had not a whine in his makeup; and the time which otherwise might have been given to his own pleasure was often, I happen to know, spent in giving pleasure to some of the younger fellows.

We who were near his own age have lost as sure a friend as any of us ever had; his kindly, rugged personality will always remain as a cherished memory. But the life of Coburn shines brightest in his unique relation to the younger fellows. In the hearts of a multitude of them he will live on in affectionate remembrance as "Pa" Coburn.

DINSMORE ELY—AN APPRECIATION

PERHAPS, it is peculiarly appropriate that I should write a few words about Lieutenant Dinsmore Ely, of the Aviation Section of the American Army, who was killed in France in an airplane accident on April 23, because as a friend I knew his character so well, and as a soldier I can judge so accurately of how splendidly he rose to the highest ideals of all that is best and greatest in the military service of his country and humanity.

He was one of my younger brothers in the Lambda Chi Alpha Fraternity and as we were both active members during his entire life at Technology, I knew him very intimately. I remember very well the profound satisfaction when he was pledged, for he didn't jump at the chance. I don't think he ever did anything important on impulse. As in other matters, he carefully considered whether he wanted to join a fraternity at all, and whether he wanted to join ours—but after he had made that decision he was the most whole-hearted and thorough-going member we had—always holding office, always working unceasingly for developing the chapter along the highest ideals, and holding our highest office at the end of the third year when he left us for the front.

He was one of the most honest, loyal and thoroughly admirable and lovable boys I ever knew. So much for his personal school-boy side up to the time he left us to become one of his country's heroes.

From the moment this nation entered the war he was obsessed with the idea of his immediate call to duty. He wasn't a natural soldier, a lover of matters military, or one of those who enlist at the earliest opportunity from sheer love of excitement and danger. On the contrary, he was of quiet, gentle, artistic temperament. His call to action was the stern conviction of duty to be done, and a fixed idea that the enemy had sinned so deeply that our side of the war was a fight for humanity, and his only anxiety was to find that method which would get him most quickly into action. For a few days he yielded to the desire of his father and to my own persuasion that he finish his course at Technology, but in the end he could not convince himself that this course was consistent with his idea of duty, and he joined an ambulance unit as the quickest way to get to the front. On arrival in France, he

transferred almost immediately to the famous Lafayette Escadrille, in which service he practically spent his entire time, for although he had been transferred to the United States service, he met his death while flying as a volunteer with his old organization.

His conception of his mission was sublime. One who knew Dinsmore Ely as I knew him cannot conceive of him as an air fighter with all its chances of desperate combat, as a matter of choice. One cannot conceive of him sending a fellow being, even an enemy, hurtling through the air to death thousands of feet below, even in the heat of combat, without poignant regret that such a course was necessary; and yet we know of him darting out to meet the enemy against odds so great that he was especially cited for bravery. We who knew him think of him more as poet and artist than in the desperate air fighting game, and yet we read in his own words of a splendid fight, when he started to fall from a height of two thousand feet, hanging to the safety belt, with his plane upside down, and never giving up or despairing but fighting every inch of the way to a safe landing. We feel that he was inspired, not so much with the idea of personal safety, but that he must live to go on with his work. To me this fight of the disabled flyer, if we could only always know the circumstances of it, would be the supreme test of the right of the man to be numbered with the immortals. It is not so much in the fight where bravery is shown—most men are brave in battle or single combat. The flying fighter dashes out against odds, without a thought of what will happen to him, but only of what he can do to his opponents. But when he is hit, or his plane is fatally hurt, does he give up and die; or does he, fighting for breath, for consciousness, for mechanical control, die only when the most courageous could go on no longer? All honor to the flyer who with courage and skill has been greatly successful, but do not forget the sublimity of courage and endurance which may have been shown by the man who successfully lands after being driven down in combat or accident, or who fights fiercely for the mastery of injured body or broken plane in those few terrible moments before he crashes to earth.

Fortunately Ely has left us direct evidence of his state of mind during the later days of his life just before he was called on for the supreme sacrifice. A letter received by his father a few days after the news of Ely's death in France shows so lofty a conception of his duty that we feel that he will be given a permanent place

in American history and that his words may long be quoted as an inspiration to duty and sacrifice for humanity. The words of special significance are these:

"And I want to say in closing, if anything should happen to me, let's have no mourning in spirit or in dress. Like a Liberty bond, it is an investment, not a loss, when a man dies for his country. It is an honor to a family; and is that the time for weeping? I would rather leave my family rich in pleasant memories of my life than numbed in sorrow at my death."

EDWIN T. COLE, *Major United States Army.*

DINSMORE ELY '18

His letters . . . aeroplane experiences. His funeral in Paris

Besides Major Cole's appreciation of the life and death of Dinsmore Ely, '18, the REVIEW is printing the account of his funeral in Paris, and the part the French people took therein, as well as two of his letters showing his fearlessness in flight. The account of his grim battle with the falling plane, with its characteristic touch at the end of emotion in response to natural beauty, and the other, earlier, showing the novice facing a new and terrifying experience with a smile, will be found interesting in themselves.

But there is another reason for printing these memorials of Lieutenant Ely. He is the first Technology man whose death roused national feeling. His spirited words, with which Major Cole ends his article, were read aloud in Congress, were made the subject of a patriotic cartoon in the *Chicago Tribune*, were generally read throughout the country. They are an unusual expression of the feeling of our flying men . . . of our young fighters in general. And the fact that Technology helped to form this sensitive, eager, determined spirit should make every man of us prouder that he so lived and died.

We print the later letter, received on March 1:

"My worst experience in the air was awaiting me. We flew in the afternoon. I took the machine and a parachute and climbed to 1800 meters. We were only supposed to climb to 1400, but I disobeyed, and it probably saved my life. I threw out the parachute and took a couple of turns at it. After diving at the thing and mounting again, I started into a roundversment with my eyes on the parachute. Unconsciously I went into a loop and stopped in the upside-down position, where I hung by my belt. I took the motor and grabbed a strut to hold myself in the seat.

"The machine fell in its upside-down position, till it gained terrible speed; then it slowly turned over into a nose dive, and I came

out in a tight spiral, which slowly widened into a circle at *ligne de vol.*, but the controls were almost useless, and it took all my strength to keep from diving into the ground. You know what 'skidding' is. You can imagine what loss of control in an automobile going at high speed would be, but you cannot imagine what loss of control of an aeroplane speed would be, any more than a lumber jack can imagine a million dollars. When a machine is upside down the stress comes on the wrong side of the wings and is apt to spring them. My plane had fallen 1000 meters, and the wings had been sprung out of adjustment so that the controls were barely able to correct the change.

"I did not regain control of any sort till I was 400 meters from the ground, and then I could do nothing but spiral to the left. In that fall, when I found I could not control the machine, I belived it was my last flight. It was the first time I have ever been conscious of looking death squarely in the face. After the first 100 meters of fall I was perfectly aware of the danger. I was wholly possessed in turns by doubt, fear, resignation (it was just there that I was almost fool enough to give up), anger that I should think of such a thing, and finally realization that only cool thinking would bring me out alive—and it did. From 400 meters I spiraled down with barely enough motor to keep me from falling, in order that the strain on the controls would be minimum. The old brain was working clearly then, for I made a fine adjustment of the throttle and gasolene—just enough to counteract the resistance of controls, crossed in order to counteract the bent wings, and just enough to let the plane sink fast enough so that it would hit the ground into the wind in the next turn of the spiral, which I could not avoid.

"Allowing for the wind, I managed to control the spiral just enough to land on the only available landing ground in the vicinity. The landing was perfect, but the machine rolled in the ditch and tipped up on its nose. As I had cut the motor just before landing the propeller was stopped, and not a thing was broken. If the wings had been bent a quarter of an inch more they would have carried me home.

"The machines they use here are old ones, and that was probably responsible for the accident. The weak spot of the Nieuport caused many deaths before any one ever survived to tell what had happened. Again the gods were with me, and I lived to be the wiser. When I undid my belt and climbed out of the machine my hands were never steadier or my mind more tranquil. Many Russians from the detention camp near by swarmed around, and I set them to work righting the plane and wheeling it over to a post where an American was on guard.

"Leaving the machine in his care I hit across country for the aviation field. As I walked through the brushwood the beauties

of nature were possessed with a renewed charm. The sea breeze, perfumed with the scent of pine, seemed a sweeter incense; the clouds were more billowy. My step was wondrously buoyant, for I felt like one to whom the gods had given special privilege to return among the treasures of his childhood. The passing of death's shadow is a stimulus to the charm of living."

The other letter, reprinted from the February *Technology Monthly*, is earlier, telling about his first altitude test.

"They told me to take my altitude test and put me into a machine. The object is to climb to a height of 26,000 meters . . . 85,000 feet . . . and stayed there for an hour.

"Well, I started out with a good motor and a joyous heart, for the weather had been bad for the last six days and I felt like a horse who needs a run. The plane climbed wonderfully. There were quite a few clouds in the sky but I saw blue spots to go through, so I circled high over the aviation field. In the first fifteen minutes I had climbed 1900 meters, but once up there I found that the holes in the sky had disappeared and there was nothing for it but to go right up through the clouds. The low-hanging cloudlets began to whisk by and the mist gathered on my glasses. Never having played around in the clouds much, I didn't know what was coming. Well, the mist grew thicker and thicker, and looking down, I found the ground fading away like pictures on a movie screen when the lights turn on.

"I began to wonder what I'd do without any ground under me. I soon found out when the ground disappeared entirely. Have you been in a fog so thick that you couldn't see your hand before your face, and sort of hesitate to step farther for fear of falling off the edge of something or running into something? Then imagine going through such a fog at 80 miles an hour.

"When I had been out of sight of ground for less than a minute something strange seemed to be happening. There was a feeling of unsteadiness, and I thought maybe I was tipping a little. I tried to level up the plane and found I couldn't tell whether it was tipping to right or left. The controls went flabby and then the bottom dropped out. You understand, I couldn't see 20 feet. But I was falling—faster, faster, faster. The wires and struts of the machine began to whistle and sing and the wind roared by my ears. I began to think very fast. No one has ever fallen far enough to know what that speed is and lived to tell about it. I was falling, falling, like a lost star. I was frightened, in a way, but there was so much excitement, too much to think about to be panic-stricken. It was awful and thrilling.

You wonder what happened—why I tell it slowly? That is how I wondered what was going to happen. The seconds seemed like minutes. I began to reason about it. Was it all over? Had I made my last mistake when I entered those clouds? Had all my train-

ing and education for twenty-three years been leading up to this fall? It seemed unreasonable and unjust. Still, there I was falling, as in a dream.

"Well, I didn't need my engine. I was going fast enough without it, so I cut it off. But that's all the good it did. I couldn't see my propeller, and yet I plunged downward. That's right: I must be falling downward. Ah, a bright idea. Downward—therefore toward the earth. Then I recalled the fact that the lowest clouds were 1800 meters above the earth and I was still in them. I must come out of them before striking; so I waited. My head felt light; my eyes watered behind the glasses. I remembered watching the loose lid on the map box waving and tilting back and forth. Then suddenly I became aware of a shadow, a dark spot, a body, and there way off at the end of my wing was a map of the world coming to me. I headed for it and slowly let the machine come to its flying position, and it was over. I was flying serenely above the earth with a surprising lack of concern. I had fallen 1000 feet.

"That was the first one, the thrilling, fearful one. But I hadn't made my altitude, so I tried again and fell the same. Many times I tried and fell the same. Once I saw the sun through the mist, and it was under my wing instead of over it; I was then falling upside down. I do not know the capers that that machine cut up there during the hour and a half of my repeated endeavors to go up through that strata of clouds, but no acrobatic was left unaccomplished, I am sure. Spirals, barrel turns, nose dives, reversements all unknown to me. I pressed on one side and then on the other. I hung by my belt and pressed forward and backward. Again I would fall into the open, again climb into the clouds. But it was all useless and vain. I could not keep my balance without the world or sun to go by. Then my motor began to miss, so I decided to go down.

"Well, if a person has undergone all the dangers and surprises that the air has to offer without being able to see what he is doing, he feels perfectly at home doing anything when he has a clear outlook. I had proved that the machine couldn't hurt itself by falling 1000 feet, and, as I was still some 7000 feet high, I decided to experiment. So I did spirals right and left, wing slips, nose and tail slips, reversements and stalls, vertical banks and crossed controls—everything, in fact, that I had ever seen done with this machine.

"They were all simple, without terrors, and quite safe. I failed in my altitude, but I learned enough about the handling of that machine to make up for a dozen failures. I'll try my altitude again on a clear day. I am glad I had the experience. It gave me great confidence. I did three hours flying yesterday.

"The most dangerous thing that happened was one time when I fell in the clouds and the fall seemed longer than usual before the clear air was reached. Suddenly I realized that my glasses

were covered with snow, so I took them off and found I had fallen 200 meters below the clouds while blinded by my glasses. Just to show how nicely balanced a good machine is I let go of the controls while cleaning my glasses, about two minutes, and steered entirely with my feet. My, but it is a wonderful game! If I come through, Bob, I'll give you one royal ride in the heavens before I quit.

Your ever loving brother,

DINS.

THE FUNERAL IN PARIS

Dinsmore Ely had two funeral services. One, of pathetic charm in Winnetka, the other at Versailles, where his body will rest.

"Last Sunday" a letter says, "Dr. and Mrs. Ely and a few friends held a funeral service at their cottage in the north woods. His father gathered together Dinsmore's personal belongings and placed them in the boy's favorite canoe. His woods pack, his fishing tackle, his guns and blanket were covered with evergreens and early flowers which had been gathered by Mrs. Ely. Over all was placed a large American flag and then the canoe was towed out into the little lake to a quiet nook which was once the boy's favorite retreat. There it was sunk beneath the quiet waters, amid the great outdoors which the boy had loved.

A friend of his in Paris at the time writes back of the other funeral on April 24 in Paris, no less moving, and representative of the feeling of France for the Americans who are dying in their behalf.

FRANCE, April 24, 1918.

"This afternoon I realized how very proud you should feel that you have given to the 'great cause' one of the noblest and best of young men. I was more impressed of this as I walked with many others behind the hearse and saw the reverence and homage paid him by every one—men, women and children—to 'les Americains,' as the cortege moved along from the chapel at the hospital to the English Church—in front of which was draped the Stars and Stripes—where the services were held. The French artillery escorted from the chapel to the church, remaining outside until the services were concluded—then from the church to the gates of the cemetery.

"After the detachment of French artillery came a detachment of United States Marines, the chaplains, then the hearse, on both sides of which were members of the Aviation Corps, five of them from the Lafayette Escadrille, on each side of these were four French artillerymen, marching with their guns pointed down. Behind came the pall-bearers and then representatives of the government, the prefect of the Seine et Oise, representatives of the Allied Council and French military. Then followed civilian men and women, the representatives of the Y. M. C. A. and Red

Cross. The services at the church and the grave were conducted by the English chaplain and a United States army chaplain. The songs were 'Abide with Me' and 'For All the Saints Who From Their Labors Rest,' also a solo.

"From the church the cortege proceeded across the Place des Armes to the Ave. de Paris, for some distance. Here, while in progress, a friendly aviator descended very low and followed for a distance. In passing, every man bared his head, from the small boy of five years of age to the gray-haired old men, every one standing reverently while the cortege passed. The silent tribute paid by the French was very touching.

"Two striking incidents occurred. At the church when we entered was sitting a French woman in mourning, who joined us in walking to the cemetery, and said that she had a deep sympathetic feeling for the absent parents. Asked for your address to write you. She had lost two sons. The other, an old French woman of seventy years, seeing that it was an American who had given his life for France, joined the procession to pay tribute to him.

"While waiting in Versailles, I spoke to Mrs. Ovington, whose son was a fellow companion of Dinsmore. She has been the secretary of the Lafayette Escadrille for some time and looks upon all the boys as her own. As soon as she heard of the accident, she visited the hospital, where two Y. M. C. A. workers had preceded her, and found that the best surgeon and nurses were in attendance and everything was being done that was possible for the boy's comfort. He was taken to the hospital badly injured, with a fractured skull, unconscious and never regained consciousness.

"The casket was covered with the Stars and Stripes, over which were many beautiful floral tributes, fully as many as if he were at home. Two very large wreaths, containing the most beautiful flowers, were given by the Aviation Corps, one for his family, the other theirs. These were fastened to the sides of the hearse as it carried the remains. After the lowering of the casket, the bugler of the United States Marines gave the last reveille. It is difficult for me to describe in detail, all that I want to, but I do so want to convey to you that if it had to be it could not have been a better testimonial of one country to another's countrymen. I was so impressed by the reverence from every one—the military, standing at attention and saluting, the civilians of every class, all in reverence, not in curiosity.

"The French feel so deeply grateful to the Americans and love them all. Tears were in their eyes, for they too, have sacrificed much."

EDITORIAL

BEFORE the war came to turn the thoughts of the Institute and her alumni to the immediate necessities of life, a good many of us believed that there should be extensions of the Institute's curriculum in the direction of scientific investigation of the relations of human beings in industry and government and of a system of education resulting therefrom. The Institute has effected great changes in industry through its teachings and researches upon physical energy and matter; why may it not effect as great social changes if it brought to the problem of human energy and human material the same scientific spirit? More and more we see the country involved in industrial and governmental troubles from which at present there is no authoritative way out. The end of the war will see them multiplied. The Institute should be ready to train men to manage men as well as materials.

Mr. Munroe, whose efforts toward reëducating crippled soldiers are told elsewhere in this issue, has long been very earnest about a course in human engineering, in the psychology of employer and employee. Some day soon we hope to see that established. But with it should be another course, a course in actual management of municipality and state by engineers, who know not only pure and applied science, but something about the problems of city government as distinct from city management. These two courses should go hand in hand.

In this issue we reprint from *Harper's Magazine* the story of how an Institute alumnus has made a splendid success of "managing" the city of Dayton. He has done the thing the Institute can well afford to train some of its graduates to do.

In the November issue we shall print with illustrative diagrams an article by W. R. Greeley, '02, a synopsis of a proposed course for city managers, for engineers, Institute trained, fitted not only to run the machinery of a city, but to safeguard the liberty and progress of the citizens. For a city manager careful only of the material welfare of a city would be no better than the old traditional regime of politicians.

The engineer of the future must be able to govern wisely either city or factory, as well as build its bridges or supervise its product. He cannot do it well unless he has been trained specifically for the task. The world is, on the whole, getting rid of amateurs in

high places, but they are still fearfully numerous. Is there any fundamental reason why the Institute should not, as soon as it is possible, address itself to this old and neglected task and opportunity?

THE NEW HAMPSHIRE TECH CLUB'S SUMMER REUNION

A record day and record weather combined to make the reunion of the Tech Club of New Hampshire on Sunday, June 30, at Dover the greatest success of a long series of such reunions. The mecca for the alumni of this great college was Three Rivers Farm, the home of the president, E. W. Rollins, '71, of Dover, Boston and Denver, and the visitors gathered from the industrial centers of three neighboring states, Maine, New Hampshire and Massachusetts.

From Boston the company included: Prof. R. H. Richards, '68; James W. Rollins, '78; G. W. Treat, '98; Henry J. Horn, '88; Prof. C. E. Locke, '98, and Andrew Fisher, Jr., C. H. Johnson and F. W. Goldthwait of '05, and John Ritchie, Jr.

A very interesting feature of the day was the presence of Miss Frost with the Rollinsford Farm unit, a dozen or more young college women who are doing their bit by helping in the matter of food supply.

After-dinner speaking included remarks by Prof. R. H. Richards, '68, who told of the early days of Technology; Harry J. Horn, '88, just returned from a war mission to Russia; Judge John Kivel of Dover, who has always the highest praise for the M. I. T.; and N. S. Bean, R. W. Lord and Richard W. Hale, representing the clubs of New Hampshire, Maine and the Merrimack Valley Club, respectively. Dean C. H. Hewitt of the State College at Durham outlined the special work undertaken by his Institution in preparing men for the mechanical work of the army, and John Ritchie, Jr., spoke of the lines of instruction taken up by the M. I. T. in its various government schools and other military movements, some thirty-five in number.

A TECHNOLOGY ENGINEER AS CITY MANAGER

Henry M. Waite, '90, takes the City of Dayton
out of Politics

Some day when Jimmy Munroe's proposed course on Human Engineering is made a part of the Institute curriculum, we hope to see a large number of our engineering graduates running municipalities. In the meantime we hope that the following article may help along the idea. We are glad to be able to reprint from the June number of Harper's Magazine this story by Burton J. Hendrick, the well-known social and political investigator, entitled "Taking the American City out of Politics." It is a monument of work well done to Mr. Waite and a picture of great opportunity to the engineering profession as a whole.

THERE is nothing spectacular, or possibly even interesting, about the personality of Mr. Henry M. Waite, the much-talked-about "City Manager" of Dayton, Ohio. This new idea in municipal government found little favor at first with the newspaper men. Mr. Waite's long tabulations of statistics, showing the people precisely how their money had been spent, and what they had obtained for it, furnished few opportunities for headlines. The everyday squabbings of political factions, the picturesque romances involved in the distribution of patronage, the Homeric conflicts of party leaders, the alternating emotions inspired by "wide-open" and "closed towns," the extravagant descriptions of waste and corruption—these details, however humiliating and sordid their implications may have been, at least made American municipal politics exciting and entertaining. Compared to this lurid atmosphere, the present régime of efficiency in Dayton hangs over the community almost like a pall. The city hall itself symbolizes the new and quiet spirit. Ordinarily this building in American cities is a headquarters of animation and "human interest." It is the place where politicians and their retainers gather to discuss and determine questions of state and too frequently its disheveled appearance suggests the personal motives and the waste and extravagance that dominate municipal policies. The Dayton city hall, an inconspicuous building of unspeakable

architecture, astonishes by its neatness. The floors are carefully swept; the clerks and other employees are industriously bending over their work; no local statesmen, with upturned cigars and hats perched on the backs of their heads, are gathered in mysterious corners discussing momentous issues in whispers and now and then buttonholing more important gentlemen who pass in and out of the executive offices. The whole situation suggests that here we have a large number of prosaic rooms in which several hundred people are engaged in performing certain daily tasks, quite as part of an industrial or corporate organization.

One of these offices bears the sign "City Manager." The door is always open, and Mr. Waite is always completely within view. Quite commonly he is talking to one of the stockholders in his unique corporation—one of the men, women, or even children who make up the citizenship of Dayton. If it is summer-time he may be sitting in his shirt sleeves; always he is dressed in an easy-fitting business suit, never assuming the frock coat and the white necktie that usually distinguish urban statesmanship in this country. He is a trim-looking, smoothly shaven, somewhat stocky gentleman of forty-seven; his steady poise, his quietly resting body, the gray eyes that calmly gaze at his callers through eyeglasses indicate not only assurance, but extreme self-command. He does not greet his callers with effervescence; neither does he treat them with disdain. While talking with them he does not glance at the ceiling and nervously finger his mail; neither does he encourage protracted interviews. There is a feeling that Mr. Waite has all the time necessary for the details of the business in hand; yet it is equally apparent that he has no time for ordinary small talk or extraneous matters. He listens attentively, asks questions quickly, smiles pleasantly at the right moment, and develops a perceptible eagerness if he happens to touch upon the general merits of the Dayton plan. The fact is that Mr. Waite behaves admirably in character; he is precisely what he has always been—a man with the technical training of an engineer, experienced in problems of public works, accustomed to dealing with figures and facts, and having none of the talents that make the great American politician. It is plain why the reporters, in the first days of his incumbency, found him so little to their liking. The one quality that he lacked was the gift of publicity. Mr. Waite solved this problem in a way that sheds the utmost

light upon his methods. He placed at the disposal of the reporters the entire official correspondence of Dayton; duplicates of every letter, as they are written, are placed in a basket, to which the newspapers have free and constant access. They even see the mail which, in most cities, would be regarded as extremely confidential; in case publication of the facts would work a business injury, a hint from the manager keeps them out of the press. In this way Mr. Waite has developed publicity of a novel kind. The government of Dayton has no secrets from its constituents, for at any moment any citizen can learn precisely how his public servants are spending his money. They can get the names of everybody with whom the city is doing business and the terms upon which they are doing it, and they can learn every night the city's financial situation to the last penny. The manager's open door and open reception room, his open books and open correspondence emphasize the basic principles of publicity upon which the new system is based.

Yet this city of Dayton, and the sixty others which have adopted the same municipal organization, are perhaps working out the final experiment in the much-vexed problem of American municipal government. It seems probable that, after trying endless "plans," we shall reorganize all American cities in accordance with the Dayton idea. The first fact concerning the manager plan immediately argues in its favor. It does not represent the idealistic conception of some closet philosopher; like the British constitution itself, the Dayton plan represents the working of immutable and insistent forces. A group of visionary men did not develop this scheme from their inner consciousness; external circumstances forced the city to adopt it. Until April, 1913, the city of Dayton had followed the historic course of all American municipalities, and the inefficiency and corruption of its administration represented the commonplace American standard. It possessed two great parties and several smaller ones constantly struggling for supremacy—that is, for the spoils; it had the usual easy-going electorate, and, like most American cities, it had its periodical eruptions of virtue and "reform administrations," followed by the usual relapse into civic indifference. Like the "decent element" of New York, Chicago, and San Francisco, Dayton's citizens were "too busy" to keep a constant watch upon their public servants. Occasionally the "business men" lamented

the growth of "socialism" among the city's increasing foreign population; women's clubs and civic associations became anxious over the progress of the red light district, and in all other details Dayton simply played true to the American type. Indeed, Dayton reached a depth of municipal inefficiency almost unexampled even in the United States. "Government by deficit" was the description frequently applied to it. "What Dayton needs is not a manager, but a receiver," was Mr. Waite's first remark after glancing through the books. That Dayton should have no budget, that local politicians instead of experts should be filling the offices, that each department should be a separate entity in itself, that taxes should be high, that the public health should be neglected—all this we should have expected, for that is the American plan; what rendered Dayton almost unique was that it floated bond issues to pay current expenses, such as the salaries of school-teachers, policemen, and the like.

All this time, however, the city of Dayton presented precisely that contrast which has astounded so many foreign commentators on the United States. That was the difference between its municipal organization and the organization of private business. Alongside this absurd city government great business enterprises had developed in recent years. These industries had acquired a world-wide reputation for the skill with which they were organized and the energy and success with which they were conducted, and experts from America and Europe frequently came to Dayton to study the last word in modern business organization. These factories did more than turn out a huge annual product and enrich their owners. They were really great industrial communities, and their proprietors had acquired a great reputation for the interest which they displayed in the human side of their enterprises; they had private training establishments for their employees, pension systems, night schools, hospitals, playgrounds, and the like. They regarded it as part of their duty not only to make their employees successful breadwinners but successful citizens, and they even established facilities for teaching their foreign working men English and training them in American history and the meaning of American institutions. Thus here, existing side by side, Dayton had these two glaring phenomena: a dirty, unkempt city hall, full of tobacco-chewing loafers, a high death rate, a high infant mortality rate, a red light district, an

insufficient water supply, streets full of uncollected ashes and rubbish, unsanitary jails, frenzied municipal finance; on the other side great industrial establishments whose watchword was efficiency, whose success and whose attractiveness to industry had increased the population of Dayton from 61,000 to 116,000 in twenty years.

It seems strange, does it not, that these two contrasting facts should not have conveyed their own lesson? For years the enlightened people of Dayton had fussed over the ever-present problem, "How can we improve our city government?" They sent experts abroad to study the matter in all its phases, hoping to find elsewhere a scheme that would fit local conditions. They ran the whole gamut of single-chamber plans, borough plans, commission plans, initiative, referendum, recall, and what not. Yet all this time the answer to their queries apparently lay at their very feet. Dayton's great industries had clearly evolved a system of government that produced the most satisfactory results. The business of administering Dayton—building roads, sewers, water works, collecting garbage and ashes, managing schools, police and fire departments—was just as much a business as that of making cash registers, automobiles, and other manufactured products. Why not take the system that had proved so successful in business and use it for the city government? Already certain far-seeing citizens had caught a glimmering of this truth; it took a great natural calamity, however, to make it as clear as daylight. In March, 1913, came that great convulsion that will always figure in Dayton history as the "high water." The melting snows of winter rushed down into the Miami Valley, overwhelmed Dayton, flooded her banks, factories and schools, and forced the citizens to take to rowboats, high buildings, and the roofs of floating houses. This was the greatest crisis in the city's history, and it called for quick action. Dayton's officials stood around and wrung their hands helplessly, not having the slightest idea how to meet the situation. Since their lives had been spent in winning elections, making speeches, cultivating popularity among voters, and distributing political jobs, their helplessness in face of such a crisis is not surprising. The managers and sub-managers of Dayton's factories immediately assumed control, and in a few hours they had completely organized the business of rescuing citizens, providing them with food and shelter and clothing. By

the time the water went down a new Dayton had been planned to take the place of the old. Not only had the people been saved from destruction; they had had an unparalleled example of efficiency in government.

In this great crisis, however, their regularly elected officials had failed them; their privately conducted enterprises had performed the duties with which certain mayors, corporation counsels, comptrollers, and aldermen had been intrusted by the electorate. The activities of the corporation presidents, superintendents, department heads, and the like had been "extra-constitutional," and their only justification had been their success. For a year or two Dayton, as already said, had been seeking a new form of government. If it were really seeking a plan that would produce efficiency, apparently it was not necessary to look far. The hand of Providence itself had pointed the way. Why not adopt the system that had worked so well in this great natural crisis? Why not take over the administration ideas that had given Dayton precisely the organization which had displaced its feudal charter when real administration was needed? It seemed not improbable that the same business organization that produced cash registers, automobiles, agricultural implements, turbines, railway cars, and sewing machines, could also sweep the streets, construct highways, remove garbage, build water supply, maintain parks, manage the police and fire departments; in fine, perform the numerous activities which we have usually regarded as the exclusive province of politicians. Already a few inconspicuous communities elsewhere had experimented with this idea, and Dayton's new Bureau of Municipal Research had given some attention to the plan.

Dayton's experiences with the flood gave the example and created the public sentiment that made possible the change. The secret of business success, as illustrated in Dayton's corporations, was concentration of authority and responsibility. The stockholders elected a board of directors who had general supervision over affairs. This board did not attempt to control the detail of the business; in most instances it selected a president, or vice-president, gave him complete authority, and demanded results. This manager appointed the heads of departments, giving them authority in turn and in turn exacting results. Thus those twin forces of efficiency, authority and responsibility,

became the predominant factors in the whole system. Why not introduce them as the governing powers in the city administration? Fundamentally that is the idea that lies at the basis of the "City Manager" plan. The stockholders—the citizens—elect a board of directors, the five commissioners. These gentlemen have a free hand to engage a manager, to purchase him in the open American market, and to pay him such a salary as the circumstances may warrant. This manager has complete authority to run the business of the city, and, since he has this authority, he can be held completely responsible for its success. He selects the heads of his departments, and is not obliged to select them from the city of Dayton. The relation of these heads to the city manager is identically that of the department heads of a great corporation to the chief executive; the relation of the manager to the city commission is the same as that of the executive to the directorate; and the relation of the commission to the voters is the same as that of the directorate to the stockholders.

Naturally this proposal aroused much antagonism. The socialists opposed it for good socialistic reasons; since it was based upon the organization of successful private business, its origin was clearly "capitalistic." The politicians ridiculed the idea, and their opposition was similarly logical. Why should they submit to "government by non-residents," when "there are plenty of men right here in Dayton who know how to run our town?" Yet there were other opponents, less logical, though they may have been more honest and sincere. These respectable conservatives damned the suggestion as "un-American." It seemed inconceivable that an American city could exist and that municipal liberties could be preserved without the usual division of the city into wards, without a frock-coated mayor, a local legislature, an elected comptroller, sealers of weights and measures, coroners, and all the lengthy list who made voting a Dayton ballot, as some one remarked, "like voting a bedquilt." Still many of these functionaries descend from the days of Magna Charta, and their position seemed as sacred as habeas corpus and trial by jury. But Dayton's electorate is an intelligent and progressive one, and, for the most part, has outlived the age of superstition. And it had just had a persuasive illustration of efficiency and inefficiency. So Dayton turned its back upon the past, and, by a large majority, accepted the "City Manager" plan.

Let us not forget that ultimate responsibility to the voters resides, not in the manager, but in a commission of five men. There are no aldermen, no councilmen, no board of estimate, none of the useless lumber that usually makes city administration so cumbersome and intricate. But the duties of the commission are not entirely ornamental. One of them, the one who gets the most votes, has the title of mayor; he presides over the weekly meetings, represents the city on ceremonial occasions, and gets \$1800 a year salary, whereas the other commissioners get \$1200. This commission is the local legislature, in the same sense that the directorate is the legislature of the corporation. It meets weekly and passes such ordinances as its wisdom prescribes, and its approval is needed to perform the greatest function of government—the adoption of a budget. Its most important direct responsibility, however, is the selection of the manager, and, after performing this duty, its main occupation is keeping a close eye upon this important employee, and assuring itself that he measures up to the job. It engages this gentleman for no specific term, for it can “fire” him summarily if convinced that he is not properly doing his work. Clearly, therefore, the position of commissioner is one of great dignity and responsibility, and the first commission elected was almost ideally representative, its members comprising a labor leader in the printing trade, an office manager for a large industrial corporation, a manufacturer, a brick contractor, and a merchant.

The new charter did not prescribe that these gentlemen should select their manager outside of Dayton; it gave them free scope to seek him anywhere. Business prudence indicated that a non-resident might prove most satisfactory at that particular moment, for Dayton resembled a bankrupt business house that badly needed a “new deal.” When reorganization demands the elimination of the unfit and the selection of the fit, a private business ordinarily selects its reorganizer outside of its own ranks. A stranger, since he has no accumulated loyalties and is uninfluenced by personal associations and long-standing friendships, is clearly best fitted to “hire and fire.” Dayton’s new commission offered this job first to General Goethals, suggesting the salary, hitherto unparalleled in American cities, of \$25,000 a year. But General Goethals had duties elsewhere, and it was necessary to get some one not quite so well known. The procedure was precisely that

of a large corporation looking for an executive head. Several possible candidates were summoned to Dayton, and their personal and professional qualities were carefully examined. Of them all Mr. Henry M. Waite, '90, made the most favorable impression. Mr. Waite was not eagerly soliciting the job; he had just declined a place that offered him \$16,000 a year; he was therefore an independent agent, and was not obliged to accept the novel opportunity except on his own terms. He was forty-four years old, had been educated at the Massachusetts Institute of Technology, had started his professional career as a transit-man on the Big Four Railroad, and had worked his way up, serving as division engineer, bridge engineer, roadmaster, superintendent on different lines, finally becoming chief engineer and vice-president of the Clinchfield Coal Corporation. His only contact with a municipality had been as chief engineer of public works in Cincinnati, under the administration of Henry T. Hunt. Amid the howls of protesting politicians the Dayton commission offered Mr. Waite \$12,500 a year. To those who shouted that no man with any public spirit would accept such a "monstrous" salary Mr. Waite's retort was eloquent and direct. He was not accepting the job out of any sense of public spirit. Naturally he had that pride in his work which should inspire any properly constituted professional craftsman, and he was not blind to the opportunities for social service which it presented. Primarily, however, he had something to sell to Dayton—his efficiency as an executive, and Dayton, if it really wished his services, must somewhere approximate their market value. This being a city manager was as much a job as that of being a lawyer, a doctor, or a railroad president; he was not undertaking the work from any passion for public life, or as a stepping-stone to a governorship, a senatorship, or possibly the presidency. Any time Dayton thinks that a cheaper man can do the work better, Mr. Waite is ready to quit the city hall.

And Mr. Waite selected his subordinates on the same basis. As an evidence of lack of prejudice, he asked representative Dayton organizations to furnish him names of the most competent men who were available to head each of his departments, but he neglected to ask the advice of that order of society who would have been most prolific in suggestions—the machine politicians. As head of the department of Finance he made an obvious but somewhat unusual appointment—Mr. Hugh E. Wall, a distin-

guished certified public accountant. Mr. J. E. Barlow, a man with a high reputation as an engineer, became head of the Department of Public Service—another instance of “government by non-residents.” Dr. D. F. Garland, a man who, as pastor of a Lutheran church, had displayed that quality known as “social consciousness,” was made superintendent of the Department of Public Welfare. Mr. H. P. James, who had served as a member of Dayton’s fire department for fourteen years, became Director of Public Safety, an office which included the supervision of the fire and police departments. The net result of these and other appointments was that elimination of political control for which so many American cities have struggled but which few have realized. In selecting minor employees, all political considerations have likewise been disregarded, complete dependence being placed on a Civil Service Commission. Mr. Waite has now had five years in which to test this new municipal system. What, then, have been the results?

In view of the fact that we have in Dayton, almost for the first time in the nation’s history, a municipal organization that is spending money purely on business principles, it would be surprising if there should not be definite evidences of improvement. The facts brought forward are not spectacular or dramatic; the details of municipal housekeeping comprise columns of figures, contrasting the price of hose now with the prices paid under the old system, tangible evidences of economy in the purchase of typewriter ribbons, paper clips, and even more substantial items such as the reduction of the debt.

The Waite régime has not been a cheese-paring one. It has not hesitated to pay market prices for city employees, and there has been a slight increase in the tax rate. However, there has been an even greater decrease in other things. One of these is the death rate. Before the Waite régime this stood at 15.7; since it has dropped to 13. Another detail is the decreased infant mortality rate—perhaps the severest test of enlightened civic administration; this has dropped from 124 per thousand in 1913 to 87 in 1916. Yet the average Daytonian needs no elaborate statistics to prove that he is living in a changed municipal environment. He sees the signs on every hand. His streets are now painstakingly repaired and cleanly swept, whereas six years ago they were filled with filth and rubbish. Under the old political

control the Daytonian had difficulty in drawing water from the tap for his morning bath; the pressure was low and the supply so uncertain that water famines were not infrequent. Now water is as plentiful as heaven intended that it should be; new pumps, new pipe lines, new meters, new turbines have produced a practically reconstructed water system; and, while these facilities have been so completely modernized, the cost to the citizen has appreciably gone down. Dayton now collects its garbage, whereas formerly it was permitted to gather unheeded in unsalubrious heaps; a modern reduction plant, built by Mr. Waite, not only protects the city's sanitation, but brings a large revenue from the sale of grease and tankage. The city now has its own asphalt plant—an experiment in municipal ownership that has produced excellent results; it has adopted an elaborate plan of conservancy which, unless the nation's greatest engineers are wrong, will prevent future floods; it has planned and begun building a new comprehensive sewer system based upon the requirements, so far as they can be foreseen, of 1950; it has acquired large properties which have been set aside for parks; it has built a municipal greenhouse, constructed several new bridges, planted thousands of trees, and lighted the streets as they had never been lighted before. Dayton's police force, although it has not succeeded in solving the eternal vice question, has abolished graft, closed the red light district, and made the city outwardly decent and safe.

And the city manager is a leading American exponent of that new conception of city government—that it exists not only to safeguard life and property, but to promote social betterment, and to make existence more comfortable, enjoyable, and edifying for the everyday man, woman and child. Perhaps we shall find Dayton's greatest contribution to municipal administration, not in her water plant, her sewerage system and accounting methods, but in that branch of her civic life known as the Department of Public Welfare. Dayton, like all American cities, especially those which have had a rapid industrial development, has its poor quarters, its thousands of underfed children, its idle working classes, its army of vagrants and social delinquents, and its babies dying for lack of fresh air and decent surroundings. What is the city manager doing about this elementary problem? The new Department of Public Welfare is Dayton's public acknowledgment that its responsibility extends to these classes. And here

again Dayton's business enterprises have pointed the way. Its great manufacturers have long been famous for those attempts to benefit its employees which are comprehended under the name of "welfare work"; in their organizations, baths, lunch rooms, gardens, playgrounds, clubs, rest-rooms, lectures, schools, and kindergartens have figured almost as conspicuously as the finished product. Since these men were reorganizing the city on the plans which had been developed in private industry, "welfare work" necessarily became a part of the system. Doctor Garland, who has charge of this department, is responsible for the public health, recreation, parks, correctional and reformatory institutions, outdoor relief, legal aid, municipal lodging-house and public nursing, while he is also expected constantly to study the causes that produce poverty, delinquency, disease and crime. Besides reducing the death rate, he has revised the milk standard and lowered by 80 per cent its bacterial content; he has cleaned the public markets, the bakeries and candy factories, and improved the sanitation of the food supply. His department examines nearly two hundred thousand school-children every year, vaccinating the unvaccinated and providing free clinics where most ailments can be treated. Its energies in "cleaning up" the city extend to cutting weeds on vacant lots, and conducting campaigns against those citizens who scatter broadcast papers and rubbish. Doctor Garland has much simplified the municipal lodging house problem by demanding of its prospective guests half a day's work and a bath—stipulations that have cut the patronage down 75 per cent. A city employment agency furnishes saleswomen to department stores, seamstresses to households, and "hands" to the local factories. A city legal aid service furnishes legal advice to hundreds of citizens, most of them representing those poor and ignorant classes that so easily become the victims of legal technicalities. This department has driven all loan sharks out of town and made life exceedingly uncomfortable for fraudulent instalment houses.

Most cities are built for adults; the city plans, with their streets, their alleys, their ornate parks, and their speedways, clearly signify that only grown-ups are expected to inhabit them. Dayton has suddenly awakened to the fact that children form an important part of its population, and it is recasting its physical organization with that as a starting point. Streets and alleys are

all right for mature pedestrians and draymen, but nature never intended that children should live in them and derive from them their education. In 1915 Mr. Waite's Department of Welfare established eighteen playgrounds, and each public school added a similar annex to its equipment. Now marble shooting, jack stones, kite flying, baseball, and swimming are regular municipal activities. Wherever Mr. Waite finds a vacant lot he immediately attempts to convert it into a baseball diamond. He has placed the full force of the city government behind the amateur baseball league; he is himself one of the most pertinacious "fans" at these contests and has personally established a prize cup. Play festivals are more important functions than the "inaugurations" that are still the great days in most American municipalities. On such occasions one may witness the folk games and folk dances of dozens of countries. There are municipal water carnivals, with rowboat, canoe, swimming races, and firework displays. Dayton lights the river front for night bathing, and conducts a municipal dance-hall, where Mr. and Mrs. Waite may sometimes be detected two-stepping with the proletariat. And the city gives entertainments of a more intellectual kind. Its municipal concerts, where the Metropolitan Opera stars and the works of the greatest composers may be heard, have demonstrated the power of music as an educative force in a democracy.

And this spirit of benevolence extends to those who, despite great progress in recent years, are still too much neglected in this country—the wayward and criminal classes. The Dayton workhouse, like most urban institutions of the kind, presented that galaxy of habitual offenders which has long been the despair of prison reformers. A statistical study disclosed that many Daytonians had spent the larger part of their lives within its walls, serving sentences of thirty and sixty days. Can society do anything to transform these derelicts into normal human beings? Perhaps not; Dayton, however, is trying, though it is too early to draw conclusions concerning its success. One thing it can say: these men and women are making some return to society for the dislocations which they have caused. Doctor Garland has abolished the contract-labor plan. The women do all the sewing and mending for the institution; they remodel cast-off clothing into children's dresses, which are distributed, through the Associated Charities to needy families. Besides doing all the routine

work of the workhouse the men labor on the levees, in the river channels and vegetable gardens. A new parole system has been established; prisoners are distributed in the local shops and factories; while sometimes the women are placed out in such private houses as will receive them. Their weekly wages are paid to the Superintendent of Correction, who pays the prisoner's debts, and uses the rest for the support of his wife and children. Less than 10 per cent of those granted these privileges have violated them.

The old-style politician, who still exists in Dayton, momentarily looking for opportunities to retake his old trenches, has a characteristic and somewhat vulgar name for this system. He calls it "government by bugs." He has that same hostility recently voiced by Mayor Hylan of New York for "experts" of all kinds—especially those from out of town. He reluctantly admits that "that feller Waite is the best of the bunch," and that he does give "good enough government," but he has all the animosity of De Tocqueville himself toward a system in which the legislative and executive powers reside in the same body. He dislikes an order in which the average citizen calls on the manager for enlightenment instead of coming around to visit the ward boss in the back room of a saloon.

"Can't the politicians come back?" I asked Mr. Waite. "Is your scheme boss-proof?"

"Not at all," he replied, quickly. "They can corrupt the city under this system even more completely than under any other. That in itself is an argument in its favor. All power here lies with a commission of five men who are elected by popular suffrage. If the people elect five politicians these five politicians can dismiss the city manager and choose one with whom they can plunder and betray the city in every conceivable way. That is just as it should be. We cannot give a man complete power to run a city well without also giving him complete power to do all manner of evil. But the great advantage of the Dayton system is that we know precisely who is to blame. It fixes responsibility in one place instead of scattering it among a dozen different agencies. If Dayton becomes a corrupt and inefficiently managed town, it will only be because the citizens prefer to have it so." *

*Since this article was sent to the printer, Mr. Waite has been called into service and now holds a lieutenant-colonel's commission in the United States army. He has been sent to England to work on transportation problems. In keeping with the spirit of the Dayton idea, his Commissioner of Public Service, Mr. J. E. Barlow, has been promoted to the vacant post.

HOW A TECH MAN BUILDS A MILITARY CAMP

A typical story of engineering efficiency. A recent graduate, but only one out of many

THIS is the story, as a Virginia newspaper tells it, of the work of H. E. Kebbon, '12, major in the Quartermaster Corps, N. A., and Constructing Quartermaster of Camp A. A. Humphreys, the big engineers' camp near Alexandria, Va. We are glad to print it because we believe it is not an unusual story but a typical one, and that what Kebbon is doing dozens of Technology alumni, in all parts of here and France, are doing just as well. And we like to see impartial, outside testimony of how good we are.

You all remember Kebbon as the constructing quartermaster "on the job" of the new Tech and the Walker Memorial. He fought the fights and did the dirty work "on the ground"—and one never saw him without a smile on his face. This sounds like an obituary—but it isn't. "Keb" is alive and kicking—and here is what the piece in the paper says about him:

"Ten miles southwest of Alexandria, Va., over roads that are almost impossible for pleasure vehicles, lies Camp A. A. Humphreys, now in course of construction. When finished the reservation will accommodate ten regiments of engineer troops, or about eighteen thousand men.

"Work started on Camp Humphreys January 15, under conditions that could not have been worse. Men had to fight the elements day by day, for never was snow deeper, cold sharper or blasts more furious in this latitude. Laborers worked up to their waists in water. Hands and feet were stiffened by frostbite and many had to quit, be thawed out and then go to the hospital. But the work continued—not a single day was lost, and on June 1 the camp will be formally turned over to the government. It will have been completed down to the minutest detail.

"Camp Humphreys is to be a finishing school for engineers, men who can build railroads, blast rock, construct bridges and perform the hundred and one duties required in connection with the army in France. Engineer units from the various cantonments will be sent to Camp Humphreys where intensive training

will be in order and the finishing touches added before sending the men direct to France. Many troops are already encamped on the reservation, under the direction of Lieut.-Col. Richard Park, commanding officer, who contributed greatly to the rapid development of the work.

"Unless one is familiar with the lay of the land chosen for the Camp Humphreys' site, the work accomplished in such a short period cannot be appreciated. Maj. H. E. Kebbon, constructing quartermaster, deserves something better than honorable mention for the manner in which he has organized his forces, laid out the camp and rushed the work. The general contractor, P. F. Gormley, of this city, and his superintendents have worked unceasingly to meet the necessity of completing the camp on time.

"Laborers hired to excavate for camp buildings found the ground frozen to a depth of eighteen inches. The first problem to be solved was one of roads, for Camp Humphreys is one and one-half miles from the Richmond pike at a point north of the village of Accotink. It required just five days for the engineer troops to construct a plank road fifteen feet wide, capable of holding up under the constant strain of hundreds of army trucks making daily trips to Alexandria and return for building materials and supplies.

"The main highway from Alexandria to Accotink was in good shape last year for automobiles, but was never constructed to stand the wear and tear of heavily laden trucks. In less than three weeks after work started at camp this road looked as if it had been bombarded. There was no time to be lost repairing the road, for supplies and materials had to be transported and the thoroughfare must wait for much needed improvements until the camp is completed.

"At the present time Major Kebbon has at his command a small army of four thousand soldiers and civilian laborers. The soldiers are engaged in building a spur track, four miles in length, from the heart of the camp to the Washington and Richmond Railroad station at Accotink. They have also assisted in clearing the reservation of trees and have laid an industrial railroad track system to distribute material over the camp. Camp Humphreys covers an area of several hundred acres on a plateau two miles from the Potomac River. Camp Belvoir, established last summer for engineer troops, fronts the river and is almost within hailing

distance. It is believed that some day these camps will be merged into one.

"Major Kebbon, when interviewed by a representative of the *Post* yesterday, spoke enthusiastically of his work. He said:

"We had our troubles starting this camp—laborers were hard to get and harder to keep. We had to pay them top prices and provide quarters and food about on a par with the food and quarters assigned our officers.

"Thus far we have completed more than two hundred buildings, and plan to have the whole job completed by June 1."

"The camp buildings face a rectangular-shaped parade ground. Provisions are being made for company barracks (two hundred and fifty men to a company), with mess hall, guard and store-houses for each company. In some cases building plans were readjusted in order to retain a particularly fine shade tree. Many have been spared the ax. Camp Humphreys will soon have an ample water supply. Plans have already been made to dam the Accotink River, divert the water to a filtration plant and store it in a monster tank. The lighting problem will also be easily solved. Arrangements have been completed to obtain light and power from Alexandria, as this was found cheaper than to install a new plant, and a transmission line eleven miles long with thirty-three miles of wire is under construction.

"When the various engineer units arrive at Camp Humphreys, the wild, hilly nature of the country will provide for all the practical work necessary, and in addition it is planned to establish schools for instruction."

TECH MEN IN A CHINESE UNIVERSITY CLUB

NEWELL A. THOMPSON, '14, in Shanghai, China, with the Standard Oil, and William A. Adams, '08, "real estater" and builder, of the same city, send us news of a rival to the University Union in Paris. This is a full-fledged University Club of China, situated in Shanghai, with a hundred and fifty American and Chinese students, of whom fourteen are Technology men.

GOLD MEDAL FOR PROFESSOR HOVGAARD

Naval architect on leave of absence from Technology

THE Gold Medal of the London Institute of Naval Architects has been conferred on William Hovgaard of the Massachusetts Institute of Technology for research work in buoyancy and stability of submarines. Professor Hovgaard, who is a former commander of the Danish Royal Navy, is now attached to the Navy Department, giving voluntary war service. Only one other American has been so honored by the London Institute and he is Rear Admiral David W. Taylor, whose research work in speed and propulsion won the medal.

Professor William Hovgaard came to the Massachusetts Institute of Technology in 1901, and from that time until 1910 he was professor of naval design and construction. Under Professor Charles H. Peabody he did some very valuable work which has proved of great advantage to the Government. This department at Technology has been operative for twenty-five years. It has made a notable contribution of men to the Government service. Recognizing the importance of Professor Hovgaard's researches and knowledge the United States Government requisitioned him for work in the War Department soon after the outbreak of the war.

He is a native of Denmark and was graduated from the Royal Naval College at Greenwich, England. He later entered the Danish Navy, from which he resigned after coming to the Institute of Technology. He is a member of the Institute of Naval Architects of Great Britain, which has now conferred this honor upon him; the American Society of Naval Architects and Marine Engineers, and the United States Naval Institute, as well as many other non-professional organizations and clubs.

Professor Hovgaard has written many valuable books dealing with the general subject of naval construction. His first book was on submarine boats, which was published while he was in England. Since then he has published a book on "Voyages of the Norsemen" and "Structural Design of War Ships," and there are two volumes now in preparation.

ANOTHER MEDAL FOR A TECHNOLOGY PROFESSOR

Kennelly, of Harvard, wins this one

THE Franklin Institute has awarded its Howard N. Potts Gold Medal to Dr. A. E. Kennelly, of the Massachusetts Institute of Technology, Cambridge, Mass., for his original work on the hot-wire anemometer. The purpose of the device is to balance the heat produced by a measured current of electricity through a small wire against the cooling effect of a current of air, or other gas, moving across the wire. The same award was also made to Prof. Louis Vessot King, of McGill University, Montreal, Canada, for his improvements in the hot-wire anemometer, his successful investigations of various physical problems, and for his making of this instrument a practical device for anemometry.

Dr. A. E. Kennelly was born in Bombay, where his father was professor in the university. He received his education in the schools of England and Scotland, with honorary degrees of Sc.D. from Pittsburgh and A. M. from Harvard. He was first employed in electrical work connected with ships and sea cables; in 1886 he was principal electrical assistant to Thomas A. Edison; and from 1887 to 1902 he was established in Philadelphia as consulting engineer.

In the latter year he was named Professor of Electrical Engineering by Harvard University, and under the agreement for co-operation came to the Institute three years ago as professor in the same department. Now, in the absence of Professor Jackson on war service, Professor Kennelly is acting head of the Electrical Engineering Department of Technology. Incidentally he is also director of the school maintained jointly by Harvard and Technology for the instruction of Radio Engineers for the Government of the United States.

JOHN J. CARTY RECEIVES THE EDISON MEDAL

The man who let Tech men in Seattle hear Tech men
in Boston

A LARGE audience, gathered in the Engineering Societies Building, New York, at the annual meeting of the American Institute of Electrical Engineers on May 17, witnessed the presentation of the eighth Edison medal to Colonel John J. Carty of the United States Army Signal Corps, chief engineer of the American Telephone & Telegraph Company. Those to whom the medal has been awarded in previous years are Elihu Thomson, Frank J. Sprague, George Westinghouse, William Stanley, Charles F. Brush, Alexander Graham Bell and Nikola Tesla.

The award is of special interest to Technology alumni, as it was Mr. Carty who engineered the nation-wide telephone service for the Associated Clubs on the evening of the Jubilee Banquet in Symphony Hall, Boston, June, 1916.

Dr. A. E. Kennelly, professor of Electrical Engineering at Harvard University and Massachusetts Institute of Technology, told of the history and significance of the medal. Dr. Michael I. Pupin of Columbia University said: "Carty's life is filled with romance. He never went to college. At the age of eighteen, when other boys entered college, he entered the service of the American Bell Telephone Company and at the age of twenty-eight became chief engineer of the great New York Telephone Company." E. W. Rice, Jr., president of the Institute, made the formal presentation of the medal. In accepting the medal Colonel Carty gave credit for the American telephone achievements to the engineers who have been associated with him in the Bell system and paid a tribute to Maj.-Gen. George O. Squier, chief signal officer of the United States Army.

REPORT OF THE AUXILIARY WORKROOM

Including some interesting extracts of letters received
by the Auxiliary

June 1, 1918.

THE present bulletin records the ending of the winter schedule of the Workroom on May 24, a season of almost eight months. The receipts for this period have been \$16,933.70 and the expenditures \$17,049.69, which leaves us with a (temporary) deficit of \$115.99. The treasurer's books have been audited and verified for six months by the bursar of the Institute, Mr. H. S. Ford, and a certificate has been filed with the treasurer of the Workroom. We have on hand a considerable stock of unmade material for summer work.

The Workroom will be open throughout the summer on Tuesdays, Wednesdays and Thursdays from ten to four o'clock.

On May 24 there were 2252 M. I. T. men registered with our Auxiliary as in national service, of whom 562 are overseas. Up to May 24 there have been distributed 13,606 articles, and in addition sundries such as pipes, gum, razors, gunwipes and edibles amounting to more than 9000. The most important items are:

Bed-pads.....	167	Surgical shirts.....	414
Comfort bags.....	704	Convalescent gowns....	161
Laundry bags.....	593	Slippers (pairs).....	1,003
Towels.....	691	Refugee garments.....	1,664
Pajamas.....	349	Knitted garments.....	2,935
Pneumonia jackets.....	394	Bandages.....	1,347

Since the Bookroom Committee, which has now been merged with that of the Workroom, began its work in the summer of 1917, there have been sent out book boxes containing a total of 924 books; 283 separate books have been wrapped and sent by mail to individuals here and abroad, and a total of 841 parcels of newspapers and magazines has been sent to men here and in foreign service. In addition to these, hundreds of books and magazines have been sent to the Marine Hospital at Chelsea and, on request of Mr. Henry Howard, to the United States Shipping Board.

To the Technology Bureau of the University Union in Paris there have been sent 6303 articles and in addition sundries such

as adhesive plaster, soap, edibles, etc., to the number of about 600; to the Italian Relief Fund of America, 4406; and to French refugees, 932.

Since the last bulletin (April 1) two trunks have been sent to the Technology Bureau. One of these was in charge of Mr. Charles F. Flamand, who went to assist Professor Gunn in the anti-tuberculosis campaign he is making all over France. That trunk has been received, making six in all that have been safely transmitted across the seas. One other was less lucky, being taken by a Y. M. C. A. secretary who lost everything on the torpedoed *Orunsa* on April 28. This contained about \$100 worth of light underwear for which Mr. Lansingh had made an especial request.

The committee in charge of refugee clothing filled a large trunk with garments for women, by special request of the Wellesley-Radcliffe unit, and it has already arrived in France.

During February two trunks were sent, by the courtesy of friends, to Madame Le Verrier, in France, filled with clothing for refugee children, and the following letter has just been received from her, which greatly encourages us in our work:

"Your two wonderful trunks came in due time and in opening them I felt the same admiration Mr. Lansingh had when he received your Christmas gifts for the boys—it was 'the most wonderful lot of things I ever got. . . .'

"I forwarded the women's clothing, woolen garments and several boys' gray blouses to Servais les Bains where I have a small colony of people I know trying to rebuild a home on the place of what was once their house. Your gift came at the right moment. All the babies' layettes I turned over to the Vestiaire des Hôpitaux which was swamped with new refugees and whose supplies were practically exhausted. . . .

"I wanted to write before to thank you and ask you to express my sentiments of gratitude to all your friends and kind helpers. What you do for us is the right help. The refugees who for the second time in four years are driven away by the enemy are not so strong physically as they were at the start, and the badly-fed children that have suffered from exposure are in a pitiful condition. We are now putting all our effort into sending the little ones to the country, even the colonies that were comfortably settled in Paris. . . .

"We have had twelve very anxious days since the new battle started. Our men have often been one to ten, yet they have held their positions and we feel the worst is over. Meanwhile Paris is getting shelled and bombed daily. We all seem to prefer the gothas to the cannonade, because with the gothas we know when

it begins and when it ends, whereas the cannonade applied as the Germans apply it to us is treacherous, dropping always at odd intervals."

Opportunities to send more trunks are greatly sought by us since there is no quick way of getting anything over to the Union or to any one else except as passenger's luggage. Friends are, therefore, urged to let us know if they hear of any one willing to take over for us a trunk or a valise. We, of course, pay all extra transportation.

The Workroom particularly rejoices to do a bit of unexpected emergency work to prove that our sympathies are broad and our energy equal to outside calls. During April the committee voted to raise a small sum of money with which to provide a gift for the City Hospital unit, which is soon to go across to France. Fifty comfort bags, fifty pairs of slippers, and fifty laundry bags, half of them suitable for men and half for women, were given to the head nurse, Miss Emma Nichols, to use at her discretion, as need arises, either among her own staff of nurses and orderlies or for others more needy. A large amount of chocolate and twelve cartons of Fatima cigarettes were also given.

Again, the father of one of our men came to us and asked that we make fifty barrack bags for his son's company at Camp Devens, which it had been impossible for the quartermaster there to supply. We undertook to make them in less than two days. The company fund paid for them. As the son is a Technology man ('09), we gave him thirty pairs of slippers for his men just by way of God-speed.

More recently we were solicited to do something for General Hospital No. 22 of the British Expeditionary Force of which Dr. Hugh Cabot is the head surgeon. Again we raised a special fund for this purpose, and in four half-days contributed a substantial proof of our good-will, in bandages, surgical shirts, slippers and rubber necessities.

In answer to a special appeal from the Red Cross, fifty filled comfort bags were given to the Metropolitan Chapter on May 20.

Lieut.-Col. H. W. Jones, '98, commanding Base Hospital No. 114, was sent a complete athletic outfit for the First American Orthopedic Hospital, by vote of the Central Committee. It is the policy of the Auxiliary to work always in close coöperation with existing institutions. As an example—the Executive Secre-

tary wrote to Herbert Putnam of the Library War Service of the American Library Association on March 29, asking that books be sent to a Technology man who was assistant director of an Army Candidates School in France. Captain G. had asked for books to use in this Candidates School. Thanks to Mr. Putnam's courteous coöperation, the books were delivered to the school in four weeks' time, which is a pleasant thing to record in these days of reports of delayed mail.

Probably the deepest satisfaction that can ever come to the Auxiliary is to know that we are able to solace and to give practical aid to parents who have just parted with sons for this most righteous but most desolating war. One frail mother is typical of many. She had come a long distance to say good-bye to her son, just starting overseas, and she came to the Workroom to procure for him certain needed comforts. We shall never forget the brave lift of her head as she said, "A. is all I have left; my husband and my other son have died, but I am thankful I have A. to give for the world. I could not have him stay behind."

This bulletin may well close with grateful acknowledgment of the confidence reposed in us by many generous gifts of money and materials; with our warm thanks for the faithful coöperation of all our workers, and with the following letters from some of those for whom we are working.

MARY K. SEDGWICK,
Director.

The Rogers Building, 491 Boylston Street.

Under date of April 3, Rev. George Crocker Gibbs writes:

"Everything that your splendid organization is doing for us over here is very keenly appreciated. Since my short stay here I have learned this. The cupboards in which your supplies are kept have been dubbed "The Treasure Chest" and many things have found their way to a number of men who were most appreciative. One or two men have been in the last two days who had to abandon their belongings on the front where the present drive is in progress. We were able to supply them with many needs. I find the Union in its whole atmosphere extremely stimulating and believe that all the men, especially our own, find it a very wholesome place for brief stays. I am full of admiration for the splendid work of the Executive Committee and especially what Mr. Lanningh has done to put it in its present high state of efficiency."

The impression which the new head of the Technology Bureau makes upon young men is graphically told by a letter:

"Perhaps you would be interested to hear how Mr. Gibbs, the new representative at the Union, is getting along. Well, to be frank, I think you have picked a wonder! He mixes into things finely and has added fresh laurels to the Tech Bureau by his cordiality to all comers."

Lieutenant H. writes from Paris, April 23:

"Recently I have received several packages of papers from the Technology Workrooms. I certainly do appreciate these. I read them, the other commissioned men read them, the enlisted men read them, and last of all they are used to wrap up swabs. I have no doubt that they are the hardest-worked newspapers that enter France."

A major of engineers sends the following:

"Had a little boy to play with in the car today, just my Fredrick's age, brought in by his young mother, a woman of the Service de Santé. He wore the complete uniform of the famous 14th Chasseurs Alpins with their *aiguillette* of honor all complete, and a little cross and two palms—his father's honors. We had a great time together. I understand children's French better than grown people's and they my poor attempts. I had a little of the precious chocolate that his mother let me give him. He told me that his father was a captain of Chasseurs and that I would see him in heaven if I were good, where he rode a big black horse all day. His mother explained that he went by way of Verdun.

It's worth a trip around the world to see the American 75's in action. We surely have some artillery men and there is no such sight in all the world as to see them work, and I doubt if anybody works so hard. Up to their knees in mud, they go about just as on drill. They have worked all night to get the battery in position, and in the morning, clean-shaven and smart, they march back like the beat of a pendulum. Fritz gets the range and the splinters come, but there is no pause, and when a man is hurt, his place is taken without orders and there is no break in the regularity of action. If a gun and crew go out of action, the right and left guns never pay any attention. It takes good discipline, for the crews don't know anything about the general result of action and can't see any German or anything except the work they have to do; and I am told that even the very demoralizing effect of a gun exploding (as they will do) does not bother them."

One of our graduates, a captain, on the eve of sailing, has written to another graduate:

"I think you do not yet comprehend as clearly as you should

how truly this is a non-material holy war between the openly declared enemies of God on the one hand and the other peoples on the other. The blinding of the supposedly most Christian empire of Austria and its impressment into service of evil confused many. It should not do so. Personally I feel that this is the finest cause that men ever fought for.

I hope, of course, to reach the other side safely and sometime to return. If not, I suppose that to go down sword in hand, assaulting the very gates of hell, is as dulce and decorous as anything well could be."

The following testimony of the service we can do was written to one of our committee by Rev. Paul Van Dyke:

"I have worn one of your mufflers and helmets on my trips to the camps, for the Y. M. C. A., to speak to the men. The big collar of my military overcoat has no fastening in front and the muffler keeps it up, and an army hat is an awful cold thing when you are going thirty miles an hour at night in a side car of a motorcycle. I gave a pair of your wristlets to the sergeant who drove the motorcycle on the last trip I made in one, because his gloves didn't seem to fit into his sleeves very well. He was tickled to death because they came from home. He said his mother had written that she had knitted him a sweater and wristlets and sent them by mail, a long while before. He got the letter promptly but the package had never arrived.

There is a lull just now in the great battle which will break out again, perhaps, with greater violence before many days. But the danger point is passed and the Germans will not break through though we must have still much strain and slaughter. We have already had a good many men wounded in other parts of the line and we are going to send some of our divisions right into the thick of it. France will fill up with wounded men as it did after Verdun, and our boys will be among them, but we will win."

LL.D. FOR PROFESSOR SWAIN

PROF. GEORGE F. SWAIN of Technology has returned from the Pacific Coast with the degree of LL.D. conferred on him by the University of California. He also has the distinction of having been the first engineer to deliver before the university one of the Hitchcock lectures. The occasion was the semi-centennial of the University.

GIBBS MAKES GOOD

What Technology men in Paris think of the new director of the Tech Bureau of the A. U. U.

ABOUT two months ago the Reverend George Crocker Gibbs, '00, arrived in France to assume charge of the Technology Bureau of the American University Union. Since then very favorable reports have been coming from Paris about the work of Mr. Gibbs, and the Bureau.

Mr. Anson Phelps Stokes, in a letter to Mrs. Cunningham of the Auxiliary, writes:

"I want to take the earliest opportunity on my return to America to tell you that Mr. Gibbs has proven to be an excellent choice for the director of the Technology Bureau. He puts a lot of personal interest and enthusiasm into his work, and the Technology Bureau is one of the most active places in the Union. The policy he has started of serving coffee there after dinner in the evening has aided in making the Tech Bureau an especially nice place to go in the evenings. I do not think you could have made a better choice.

"Mr. Lansingh is returning in June. He has proven himself a trump, very able and intensely loyal, and he and Mr. Nettleton work splendidly together.

"I return more impressed than ever with the usefulness of the Union. It is fulfilling its function of meeting the needs of college men and their friends in war service admirably, and is undoubtedly going to develop into a permanent institution of large significance. You may have some idea of the position it has taken among the intellectual leaders in France when I tell you that M. Firman Roz, superintendent of the *Maison de la Presse*, told me recently at a meeting that he had agreed to write three articles for the *Revue Hebdomadaire* on the three great American movements in France, the Red Cross, the Y. M. C. A., and the American University Union in Europe. So you see that all the generous work and contributions that you have made to its success have been more than worth while."

Another communication in regard to the subject was received from Neal E. Tourtellotte, '17.

"Perhaps you would be interested to hear how Mr. Gibbs, the new representative at the Union, is getting along? Well, to be frank, I think you have picked a wonder! He mixes into things

fine and has added fresh laurels to the Tech Bureau by his cordiality to all comers. He bought a coffee percolator and now holds a little after dinner reception there with real United States coffee. You should see the crowds gather. All the bureaus try to get in on it now. One Sunday after dinner it looked certainly like the mob scene from 'Julius Cæsar.' Everybody apparently was there that was in the Union and they were settling the war vocally! It all helps however to spread the 'rep' of the Tech Bureau and increase the envy of our associates. Really, it is rather a common expression 'over here' now to hear from a man—'Gee! I wish I had graduated from a real place like Tech, which has such a wonderful bureau for its men.' And again, 'They have a real representative too! Not some old mossback retired college professor, but a real guy—an honest-to-God guy even if he is a minister!'

"Mr. Gibbs is all that, too. You would never know him for a minister—I'm a Methodist, you know, which may account for this statement—except for his 'dickey'! He stands kidding extremely well, which is an added attribute. He is willing to do anything in the world to oblige you, too, which will get under the skin of any man. More power to him, and do everything you can to back him up—as I know you will."

After all, the undergraduate, or the recent undergraduate, is best judge. He knows what he wants; he knows what the man in charge should be like, and he won't be backward about expressing his opinion. But older opinion brings back the same report. At the meeting of alumni secretaries in New Haven early in May, Mr. Stokes, just back from Paris, told us personally and with much warmth just what he had written to Mrs. Cunningham. And George Glidden, at the last meeting of the Council, told of a brief hurried meeting which apparently impressed him in the same way.

What the undergraduate over here thinks of the wisdom of the choice that sent Mr. Gibbs over there is to be found in an editorial of *The Tech*, based on the letter just printed and perhaps on others to the same purpose. *The Tech* chooses as its heading that bully phrase "An honest-to-God Guy" and goes on: "You said it; he's a minister, but that does not interest us half as much as the fact that he is in charge of the Technology Bureau of the American University Union in Paris, that he is partial to baseball, and knows all about making coffee in the way that only Americans can know. His name, by the way, is Reverend George Crocker Gibbs."

"Mr. Gibbs is the man who was sent over by the alumni some months ago to take the place of Mr. Lansingh in charge of our

bureau. His enthusiasm and spirit have won him from the start a foothold in the hearts of Technology men in France, and his ability and originality have won for the Technology Bureau a first place among the bureaus of the Union.

"If we are to have a bureau in Paris it is well to have a good one. Too many movements of this sort are started by men with more enthusiasm than time, and after their leader withdraws they soon reach the stage where their existence is a long fight to hold the attention of the men they are supposed to help.

"Our bureau in Paris is serving a *real* purpose, and that it does so is due almost entirely to Mr. Gibbs. Letters from Technology men 'over there' are unanimous in his praise. Such expressions as 'You would never know him for a minister,' and 'He stands kidding extremely well,' speak more eloquently than we can for the man's success."

And Mr. Gibbs, on his end, seems pleased, to judge from an early letter to Mr. Rollins.

"PARIS, April 17, 1918.

"*My dear Mr. Rollins:*

"I hope you will not find it strange that I have not rendered an account to you for the expenses of February and March. Mr. Lansingh, however, has informed me that he has written you that he is closing up the books of the Tech Bureau to turn over to me. These items of mine he now has, and they will be included in my report as soon as he turns the books over to me. The Tech Bureau seems to be getting, with the boys, to be a place to which they like to come. As I have perhaps written you our chief emphasis is to make this bureau one of the spots over here which can give them a little sense of home and of old times at Tech. I arrived here on March 20, and I append a list of visitors of the Tech Bureau. I am beginning with January to show how the numbers are increasing:

"In January there were 7, in February 20, and in March there were 45, and to date for April there have been 35. This list represents some men who have been in here perhaps as often as once a week. We are asking the boys to register if they come in at least that often. Some of the men are stationed not far from Paris and make regular weekly visits, and one or two have been living in the club waiting orders.

"I have purchased for the bureau the necessary things, including a percolator coffee pot and sugar, also condensed milk with which we may have coffee up here after lunch or dinner. This has proved wholesome and homelike, and as the weather has

been very damp, we have been obliged to have open wood fires in the bureau and this adds to the cheer."

As soon as Mr. Gibbs had reached Paris the editor of the *REVIEW* wrote him asking for a real human-interest story of the Tech Bureau. We guessed that maybe he could write one, and apparently we guessed right. But to our great disappointment the story had not arrived up to the day the *REVIEW* went to press. It may be on its way over . . . or maybe Mr. Burleson's boys in France are making a collection and so ours never reached Mr. Gibbs. But we hope to print in November an honest-to-goodness letter from the honest-to-God guy.

THE SERVICE FLAG IN BIOLOGY

A SERVICE flag with eighty-three stars has been unfurled by the Department of Biology and Public Health. At the little meeting which brought together members of the instructing staff, alumni and students, Professor Sedgwick called for a brief speech from Dr. S. J. Mixter, '75, who himself with his three sons are all enrolled in medical service with the army, while Mrs. Mixter is very busy with Auxiliary War Service Work with the Technology women. Professor S. C. Prescott, '94, who was present in major's uniform, noted that of the graduates of the Institute in this department, more than 60 per cent are represented by stars in this flag, and that of the class of last year, with twelve students enrolled, ten are represented by stars, while the other two are ready for service if the government will accept them, "One hundred per cent of active, virile patriotism," said Major Prescott. The speaker called attention to the fact that this splendid record was a tribute to the ideals of the man who for twenty-five years has given of his most earnest effort for the upbuilding of the department, an endorsement of the leadership of Professor Sedgwick.

The Electrical Department also has hung its service flag with two hundred and fifty stars, and that of the Architectural Department nearly touches one hundred.

THE ROLL OF HONOR

Men who have died in the service from April 1 to
June 11, 1918

- CYRIL M. ANGELL, '18, 1st Lieut., 147th Aero Sq., A. E. F. Killed in action, May 21, 1918.
- DINSMORE ELY, '18, 2d Lieut., Lafayette Escadrille. Died April 21, 1918, from injuries received in an airplane accident.
- W. K. B. EMERSON, JR., '20, 2d Lieut., 15th Field Art., A. E. F. Killed in action, May 14, 1918.
- PRESCOTT W. GOULD, '18, Co. C, 102d Mach. Gun Batt., A. E. F. Killed in action, May 23, 1918.
- GORDON GREENOUGH, '14, Lieut. Ord. Dept. Died at the Reid Hospital, Washington, D. C., May 1, 1918.
- FRANKLIN T. INGRAHAM, '16, 2d Lieut., C. A. C., U. S. A. Died of pneumonia at home, April 11, 1918.
- JAMES DE GRIER MAY, '18, Lieut., Officers Headquarters, Kelley Field No. 2, Texas. Killed May 9, 1918.
- ALFRED S. MILLIKEN, '14, 2d Lieut., Co. D, 6th Engrs., U. S. R., A. E. F. Killed in action, March 30, 1918.
- GEORGE ROPER, JR., '18, Cadet, British Royal Flying Corps. Killed in an accident, May 25, 1918.
- ENOS C. SAWYER, '18, Batt. A, 101st Field Art. Died April 21, 1918, of wounds received in action.
- LEROY SWAN, '17, 2d Lieut. Killed June 19, 1918, at Wilbur Wright Aviation Field, Springfield, Ohio, when airplane collapsed.
- HENRY OLIVER TOVEY, '18, Ens., U. S. N., U. S. S. *Maine*. Lost at sea March 22, 1917, off Cape Cruse.
- ALFRED THEODORE WYMAN, '16, Lieut., British Royal Flying Corps. Killed in an accident, May 27, 1918.
- Died in the service prior to April 1. Information received later.*
- FRED E. SCHROEDER, '18, Pvt., 23d Engrs. Died January 14, 1918, Camp Meade, Md.

DECORATED FOR BRAVERY

- ANGELL, CYRIL M., '18, Lieut., pilot, 147th Aero Squad., A. E. F.
Killed in action, May 14, 1918. Croix de Guerre.
- BELCHER, DONALD, '16, driver, ambulance. Croix de Guerre.
- BIGELOW, EDMUND C. S., '20, Red Cross. Croix de Guerre, May 31, 1918.
- COLLINS, ARTHUR EDGAR C., '14, Lieut., 461st F. Co., Royal Engrs., B. E. F. Recommended for Military Cross, November 24, 1917.
- DERBY, HENRY S., '19, 1st cl. Pvt., Battery A, 101st F. A., A. E. F. Cited by General Edwards for bravery, May, 1918.
- EMERSON, W. K. B., Jr., '20, 2d Lieut., 15th F. A., A. E. F. Formerly in the Ambulance Service. Received Croix de Guerre, January, 1918. Killed in action, May 14, 1918.
- FALLON, NUGENT, '06, Ensign, United States Naval Aviation, Foreign Service. Recommended for the Distinguished Service Cross, by the British government, March 12, 1918.
- JOHNSTON, NORWOOD P., '19, Ambulance Service, 1917. Awarded Croix de Guerre. Now in School of Military Aero., Cornell.
- KINGSBURY, CHESTER L., '18, Corp., Co. A, 101st Engrs., A. E. F. Won Croix de Guerre, March, 1918.
- LOWELL, GUY, '94, Maj., Red Cross, Italian Commission. Received Italian Military Medal, March, 1918.
- MURPHY, WILLIAM H., '12, 2d Lieut., 104th Inf., A. E. F. Croix de Guerre, March, 1918.
- PAGE, KENNETH B., '20, Pvt., Med. C., 104th Inf., A. E. F. Croix de Guerre, March, 1918.
- POLAND, W. B., '90, Belgian Relief. Received Cross of Legion of Honor.
- STEWART, ALAN E., '14, Capt., Canadian H. A. C., B. E. F. Received Military Cross.
- STUART, KIMBERLY, '19, Ambulance Service. Croix de Guerre, March, 1917. Now with United States Naval Aviation, Foreign Service.
- WHITE, JAMES M., '14, Lieut., Ambulance Service. Croix de Guerre. Now with 116th Engrs., A. E. F.
- WINSLOW, C.-E. A., '98, Maj., Red Cross Commission to Russia. Received medal for distinguished public service; returned home.

THE CORPORATION ELECTIONS

AT the June meeting of the Corporation announcement was made of the death of Ernest W. Bowditch, a life member since 1911. He was a special student of 1869, taking courses in Civil Engineering and Mining.

Charles Hayden, '90, of Hayden, Stone & Company, Boston, a graduate of the courses in General Science, was elected life member of the Corporation. He was elected term member in March, 1913, his term having just expired. As a member of the Corporation he served as one of the Committee on Mining and Metallurgy. He has been in a financial way a most excellent friend to his alma mater. In 1915 he was one of three men, Coleman duPont and S. Pierre duPont being the other two, to contribute about three hundred thousand dollars for the new mining building. At the alumni banquet at the dedication of the new buildings he gave one hundred thousand more.

Three term members were elected by the Corporation to serve for five years: Paul W. Litchfield, '96; Arthur D. Little, '85, and Eben D. Stevens, '68. Mr. Litchfield, whose home is in Akron, has been in responsible positions connected with the rubber manufactures of the city, and since 1900 has been in charge of all the manufacturing of the Goodyear Tire & Rubber Company. He has been president of the Technology Club of Northern Ohio and of the Akron Technology Club. Mr. Little, resident in Brookline, is one of the best known consulting engineers in the country, with headquarters in Cambridge, and identified in an official capacity with all the national chemical societies. He served for a previous five years, 1912-17, as term member. Eben S. Stevens, resident in Quinnebaug, Conn., was a special student in the first class to graduate from Technology. He is identified with textile interests, is retired from business, and has served two previous quinquenniums as term member.

FACULTY MEMBERS IN GOVERNMENT SERVICE

Professor Jackson requisitioned by the government

ANOTHER of the heads of departments at the Institute has been requisitioned by the United States government, Prof. Dugald C. Jackson, in charge of the department of Electrical Engineering. Professor Jackson was virtually approved for a commission by the Chief of Engineers before war was declared, but until some definite matter was named to which he could give his attention it was deemed best for him to devote his energies to the work of the Institute, which in all its departments lies very close to the real needs of the government. In December last, Professor Jackson took the formal oath and now has been ordered "over there." His commission is that of major in the Engineer Reserve Corps.

Major Jackson is an international authority on electricity and has been called abroad before this on civil matters related to public service corporations. He is a Pennsylvania man with the degree C. E. from Pennsylvania State College and with graduate work at Cornell. He has been engineer related to large electrical corporations, the Sprague Company and the Edison General Electric among them, with constant demands from states and cities for expert opinion.

His educational work began as professor of Electrical Engineering at the University of Wisconsin, 1891 to 1907, when he was called to the Massachusetts Institute of Technology to fill the chair of Electrical Engineering. In the same year he was named in charge of the department at Tech, a position which he still retains; in 1913 the added burden was given him of membership in the staff of the Electrical Engineering Research Laboratory. This laboratory led to the establishment at the Institute, in 1917, of a division of Electrical Research, of which he was one of the directors.

Leave of absence was granted to Professor Jackson, and to F. H. Lahee, assistant professor of Geology. Professor D. F. Comstock, '04, of the department of Physics, and Stephen Codman, '92, and Charles Everett, '07, associate and assistant professors, respectively, in Architecture, have resigned.

The appointments include Ralph J. Crosby, a senior graduating the present month, assistant in Mechanical Engineering; Arthur Litchfield Russell, '18, assistant in Electrical Engineering; Heiichi Nukiyama, research assistant in the same department, and James A. Beattie, '17, now a post-graduate student, assistant to Professor McInnes in research work in Physical Chemistry.

For the School of Military Aeronautics, the following men were named assistant instructors in various specialties: Howard F. Reed, '18, J. Sandberg, R. S. Vinal, J. J. Phelan, D. T. Pope, A. W. Hussey and W. N. Birney.

The departure of over seventy men into war service work out of a group of the couple of hundred members of the instructing staff at Technology affords one of the most difficult problems that has been presented to the Institute. With its special government schools very much larger than the original estimates called for and its normal student body diminished by only 10 or 15 per cent, the number of students that Technology is called upon to instruct in very special ways will run a hundred or two above three thousand. Its normal instructing staff was based on a maximum student body of about two thousand. The problem that is presented, therefore, is that of increasing the output of the instructing staff by one-half with a company of instructors, one-third of whose strong men, especially in the branches of technical work, have already gone into government service or into industries allied to war.

To cover this increased work of instruction, the heads of the departments have undertaken to a considerable extent duties formerly performed by members of their faculties, while for assistants and instructors Technology has found in its own student body men competent for the work. More than any other college in the land Technology brings within its walls men from other colleges. These men have oftentimes been graduated and are at the Institute for special studies. They are not infrequently more mature than the regular engineers even in more advanced classes, and by close scanning of good material like this, with more intensive work by the older members of the instructing staff, the difficulties to date have been met.

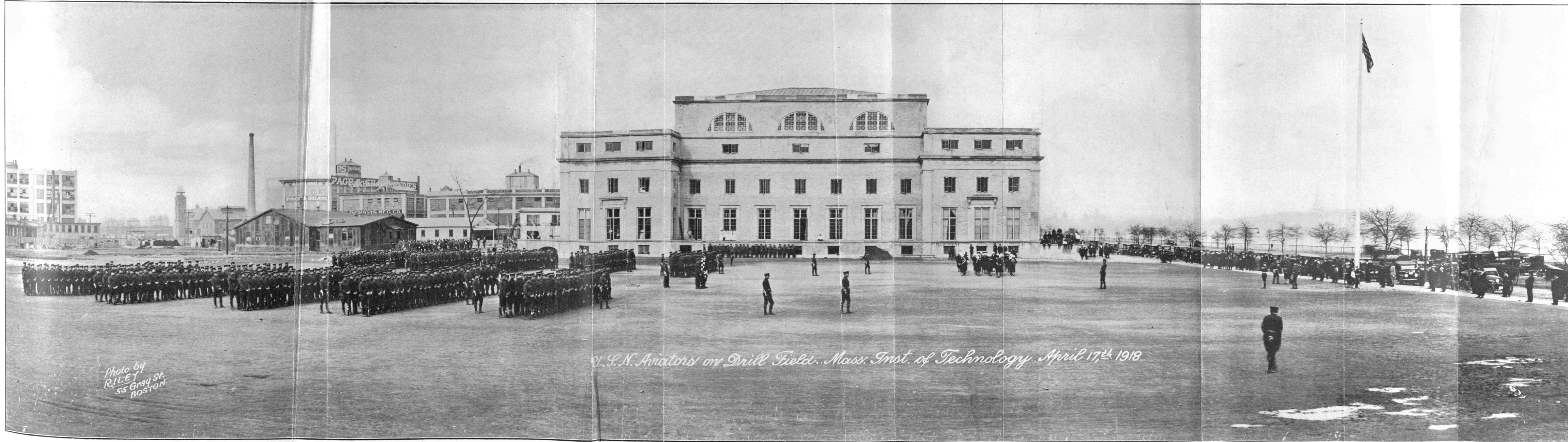
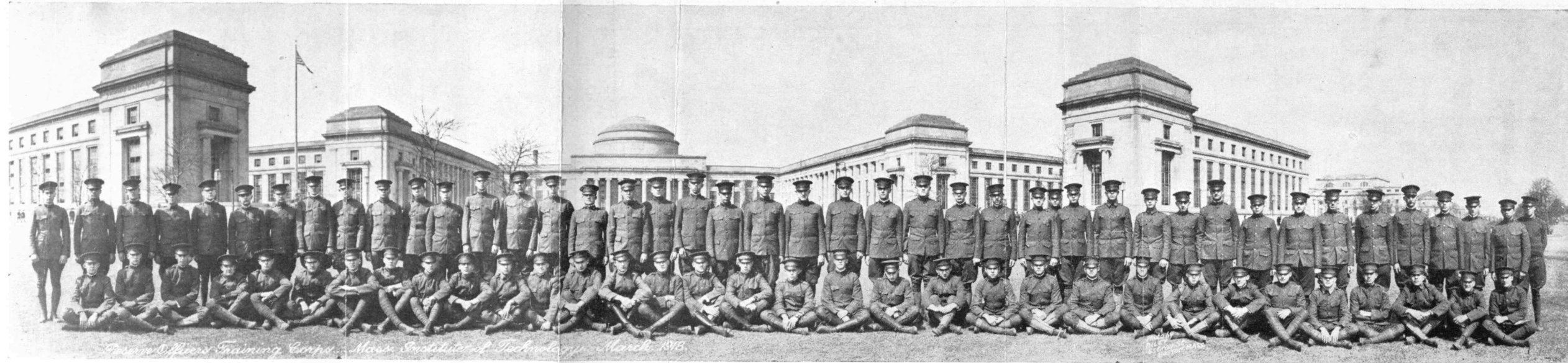


Photo by
RILEY
55 Gray St.
BOSTON.

U.S.N. Aviators on Drill Field. Mass. Inst. of Technology. April 17th 1918.



THE RESERVE OFFICERS' TRAINING CORPS, AT THE INSTITUTE, MARCH, 1918



THE FIRST BATTALION, FRESHMAN CADET CORPS, MARCH 21, 1918

THE TECHNOLOGY TANK LARGEST IN AMERICA

Eddie Miller designs a model machine

At the time of the Third Liberty Loan parade in April, the huge tank "America," three times larger than the Britannia, the British tank then visiting Boston under the auspices of the British and Canadian Recruiting Mission, was christened. Departing from the old custom of christening with the champagne bottle, only a single gold cross was hung upon her massive steel brow, typifying her dedication to the cause of God and justice. Brig.-Gen. John A. Johnston, commanding the Department of the Northeast, was selected for the honor of performing the ceremony.

Prof. E. F. Miller, '86, head of the Mechanical Department at the Institute, designed the huge machine, in which it is said the "Britannia" could be stored without the least trouble. The construction work was done under the direction of Col. Francis R. Shunk, Department Engineer of the Northeastern Department. Maj. Henry Adams, Engineers' Corps, N. A., Assistant Department Engineer, was in executive charge of the work with Capt. Henry J. Snyder, of the Quartermaster Reserve Corps as his assistant. Capt. Albert S. Smith, Superintendent of Buildings and Power at the Institute, was Chief Construction Engineer, having Second Lieuts. John A. Lunn of the Engineers' Corps and Leo H. Traver of the Quartermaster Corps as his assistants in the actual construction work.

The construction work was done in the stockade in the rear of the Institute, where machine shops have been installed. A corps of machinists have been engaged in the work, which was started on January 25, when the first rivet was driven by General Johnston, and have constructed the tank in a record-breaking time, giving the final touches to her engines, mechanism and armament within the period of three months.

The tank weighs forty-five tons and is of the size of those now in commission on the European battlefields. It is a steam, oil-burning tank, 35 feet long and 11½ feet wide.

The American army engineers took full advantage of the experiences of the English engineers and improved upon the British

type in many ways, eliminating features and designs which were proving impracticable in the big war engines of Europe and adding many distinctive American engineering improvements so that the "America" stands out as a peer of all war engines and a monument to American ability and ingenuity.

The "America" plans are now available for use in other factories where the government is turning out tanks and engines, and the "America" is but premier of a great fleet. Much credit is due Professor Miller for his invaluable services to the government in designing the tank. That it will be a great success, there can be no doubt, notwithstanding the difficulty which it experienced on its first trip.

While on her way to the christening exercises, which were scheduled to take place at five o'clock Wednesday afternoon at Copley Square before a gathering of public officials and army and navy officers, the "America" stalled on the Cambridge bridge and it was some time before the mechanics could coax her to move again. This was due to some misadjustment of the mechanism and the huge caterpillar engine was removed to the garage for repairs, and the christening postponed.

After the christening on Thursday the tank rested till Saturday morning, the day of the big Liberty Loan parade. On Saturday morning it moved over the West Boston Bridge to Arlington Street to take its place in the parade . . . and there stalled again. This time it was for good, at least for a long time. Not content with a policeman to guard it, the military authorities also stationed sentries with rifles who paced about it and kept the curious crowd at a distance. Meanwhile men from Tech, professors, superintendents, graduate students, skilled mechanics and what-all, in overalls and jumpers, were in and out of the machine like surgeons, mending the interior apparatus and getting the machine in some sort of shape so that it could trundle slowly to the Commonwealth Armory, where it lay for another period till it got strength and wind enough to crawl home. There it was thoroughly overhauled, its faults remedied, so that on June 11, it was able to exhibit, competently and effectively, to the alumni and their guests on the parade ground by Walker Memorial.

The newspapers were full of tales of German spies. It was said, that General Johnston charged the trouble to spies. *The Tech* swore that it was spies! We do not know. Editorially the

REVIEW takes no position on this important matter. Only, somebody told *us* that the military authorities monkeyed with Professor Miller's specifications, against his advice, because they were not according to engineering precedent of the United States Army . . . or Navy . . . and that trouble was the result. It sounds likely. It sounds a bit more likely, even, than spies. Beyond that we will not venture an opinion.

A SEAPLANE HANGAR

GROUND was broken early in April for the new seaplane hangar, built according to navy specifications, and costing some \$45,000. It will be 200 feet in length by 93 in width and 24 feet in the clear, with a roof in two semicircular springs.

The floor will be of concrete, but the building will be of wood with wooden trusses for the roof and regulation doors. It will extend east and west in the lot, directly back of the Mining Building and parallel to the athletic field. There will be room in it for from six to ten seaplanes.

The new hangar will be just east of the airdrome, which has recently been built for the use of the army aeronautical school. North of these buildings the line of sheds parallel with Vassar Street is continually growing, having for their uses the study of motor trucks and of gasoline engines, propellers and other aeronautical apparatus. The wind tunnel is in this company and also some storage sheds, making a fairly large village of wooden structures.

Tech has provided, just across Vassar Street and beneath the laboratory for internal combustion engines, a great tank of 100,000 gallons capacity. This, filled with water, is maintained for the benefit of neighboring structures on both sides of the railway tracks.

WAR-TIME COMMENCEMENT

The Alumni spend an afternoon at the Institute

TUESDAY afternoon, June 11, the alumni of Technology met in annual reunion at the Institute to renew their associations with the faculty and students, and incidentally to see what has been done in both government and educational work since they undertook their course of instruction at the Institute. The awarding of diplomas to the class of 1918,—few as they were because of the call of war,—a visit to the buildings, a review of the various military organizations held on the parade grounds, and an exhibition of the tank “America,” formed a few of the many events which claimed the recognition of the alumni as a worthy reception to them.

Due to the departure of members of the Senior Class for fields of service as soon as they finish their work at the Institute, the Alumni Council decided that it was advisable to dispense with Commencement Exercises for this year, and the usual Tech night at the Pops to welcome the youngest alumni. It seemed a pity, however, that the alumni who are accustomed to meet at the Institute on graduation day should lose this annual opportunity of meeting one another, and of reviewing the changes of the last year in Technology. Accordingly, Mr. Humphreys was authorized to send notices to the local alumni, informing them that June 11 was the day when the degrees would be given out and inviting them to gather at the Institute, inspect the new features of the buildings, lunch at the Walker Memorial, and attend the special military features, which were given through the courtesy of the heads of the government schools here.

These features consisted of a drill and parade of the men in the aviation schools accompanied by the Naval School Band in the parade grounds between the main buildings and the Walker Memorial.

The parade was followed by manœuvres by the tank, “America,” which was designed by Professor Miller of the Mechanical Engineering Department, and was built at the Institute. This tank has been out of commission for some time on account of

emery dust which was put in the bearings by some foreign agents, but it is now in working order again.

The exercises took place between four and six o'clock in the afternoon, and except for tea and light refreshments which were served in the main buildings, composed all the special exercises of what is usually Commencement Day.

A considerable number of the alumni were present, and were really amazed at the amount of government operations taking place at the Institute.

Speaking personally . . . heretofore we have been stealing editorially from *The Tech* . . . speaking personally, a pleasant time seemed to be enjoyed by all. There wasn't the crowd which usually attends a Commencement or a Pop night, but by the time the naviators were ready to parade, the chairs on the west terrace of the Walker Memorial were filled with guests and one lady in a yellow frock who showed like a jonquil in a pansy bed. The new bandstand also had its quota, seated inside and around the base, and, there was a large fluid group all round the edges of the big drill field between the Institute and the Memorial.

Ye editor spent most of the afternoon with Professor Richards, just back from Virginia and looking healthy, and with Miss Joslin, '81, who knew more about military doings on the other side than the editor did, and whose conversation sparkled all the afternoon. There were a lot of plain graduates, and professors who were graduates, and undergraduates, and the remarkable thing about them all was that most of them had a pretty girl along . . . daughters and such.

There was cheerful sunshine and a searching river wind and a very good naval band, and the larger part of the Naval Detachment drilled and trooped the colors and paraded for the alumni in a most impressive fashion. There must have been five hundred parading . . . and they are a crack outfit! No runts among them, tall, well-built, clean-cut, college athletes mostly, disciplined and drilled to a finish . . . it's a pleasure to watch them! And when, at the last, they swung down the drill field and the athletic grounds in column of squads, singing "The last long mile" and as they stood at attention as the big new flag came down at retreat, it made one glad that they were here at Tech.

The rest of the curiosity of the afternoon was centred on Eddie Miller's tank. There had been so much gossip about it; it had been misbehaving so flagrantly in public, sulking in a corner, and refusing to play, so to speak, that many had severe doubts whether its intentions were honorable at all. But it came out this afternoon and behaved handsomely, quite regaining its lost reputation. It trundled placidly and unhesitatingly all over the lot, doing no damage, rather acting as a lawn-roller; it clinked and clanked and emitted steam quite noisily, it went back-end-to and hind-side-before as it was bidden. It would probably have crumbled down a wall, had there been one to crumble, which there wasn't, quite as meekly and unostentatiously as it rolled the lawn.

Four men in overalls, smoking pipes, gracefully rode on its back, and from the apertures where the guns ought to be . . . and weren't . . . the genial face of Major Smith, Superintendent of Grounds and Buildings and the tank's keeper, peered out beaming with satisfaction. Many of the visitors lingered till a late hour hoping to see the tank fed, but were disappointed.

A technical account of this, the first to be made in America, will be found on another page, but to us, who are not technical, it seemed, as to the late Artemus Ward, an amooosin' little cuss. All in all, it was a pleasant afternoon and well spent. And it should have done the alumni good and given them something to think about.

AN IMPARTIAL CRITIC

A new light on the McKay muddle

DR. LOUIS BELL, well-known electrical engineer and for many years lecturer on Electrical Power Transmission at the Institute, is enough of an outsider, being a Dartmouth man, and enough of a scientific authority to cast a new and strong light on the muddle of the McKay fund.

He has written an excellently searching and dispassionate analysis of the situation, which we are glad to reprint from the *Boston Herald*. It tells some truths about Technology.

It heads the Miscellaneous Clippings, page 474. Read it!

ADDITIONS TO THE INSTITUTE PLANT

The military work necessitates still further additions

GROUND was broken early in June for the hospital, the latest of the buildings to be erected by the Institute for its Naval Aviation Detachment. The site of it is to the east of the long wing devoted to Chemistry and Physics and its front will be in line with the ends of the easternmost buildings of the educational group, the mining building and that devoted to general studies. It will be in wood and of the standard ground area adopted at the Institute for the various special structures, two hundred feet by forty. In the arrangement of its rooms, it has been planned by the Institute to meet the requirements of the case and does not follow other patterns, army or navy.

The new hospital will have a second story seventy feet by forty on the plan, displaced from the central transverse axis, so that to the south the building of one story will continue for thirty feet and to the north for one hundred feet. The second story will contain two wards, thirty feet by sixteen and twenty feet by sixteen, with place for a dozen beds, an officer's room, closets, bathrooms and utilities. On the ground floor at the northern end will be the sick bay, seventy feet by the full width of the building with space for about twenty-five beds. It will be lighted and ventilated by large windows in groups of three in each section of the room, with a doorway into the open at the southern end. A piazza ten feet wide runs the length of the sick bay on the eastern front.

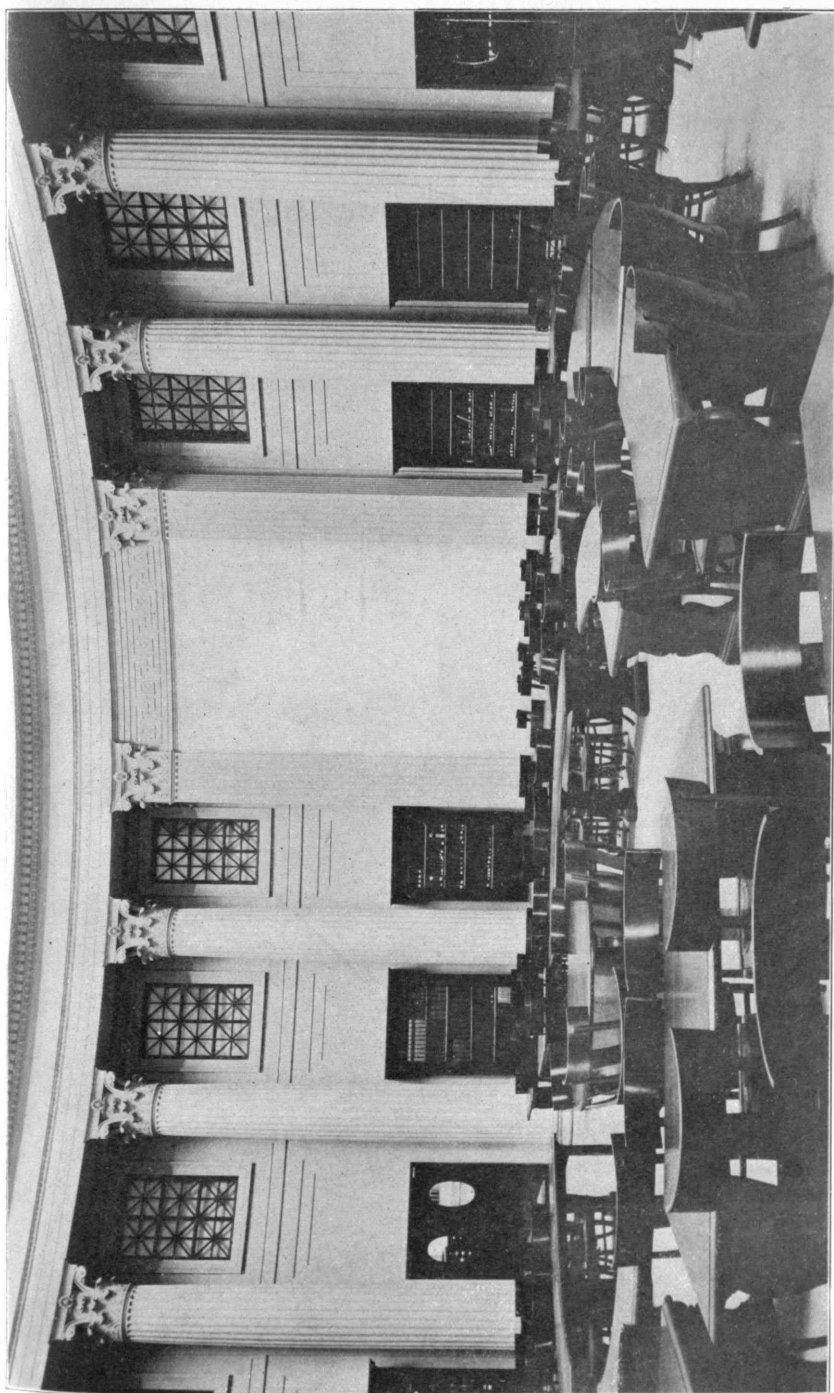
Centrally located in the main portion of the ground floor will be the diet kitchen, pantry and storerooms; there will be quarters for the resident surgeon and assistants and for the administration of the hospital, and lockers. There will be two or, if necessary, three rooms to be used for isolation and observation, these having their own special bathroom; there is a large toilet for the sick bay and two examination rooms. Special offices will be fitted up for the dentists, dispensary and pharmacy, and these items with a hallway will be closely fitted into the floor space of the building.

The hospital will be of wood, with the clapboard finish that is

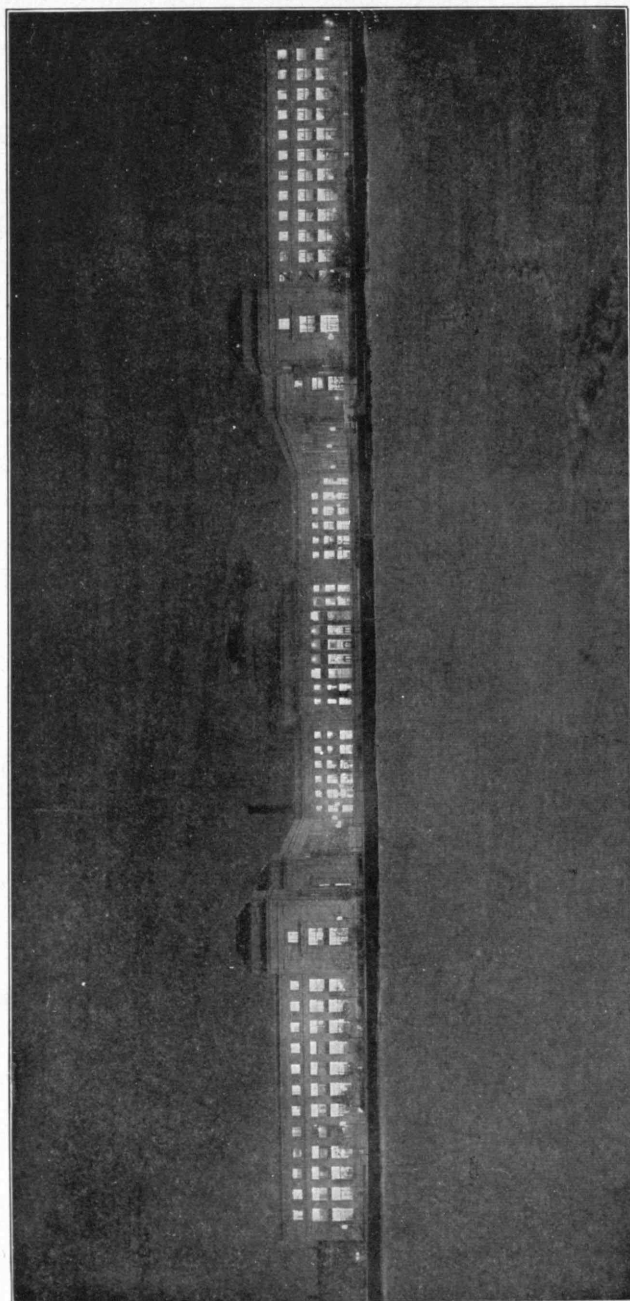
used throughout the group of new structures, whose cost now mounts to about one hundred and fifty thousand dollars. There will be a pitch roof, with decorative effect about the entrances.

The other emergency buildings of the Institute are progressing rapidly, with a new minor one put into commission every few days. The new engine laboratories along Vassar Street are in use, the band stand is completed, the pier for the naval cutters is finished, the navy hangar is complete externally save the placing of two or three of the great doors. The "cathedral," which will have rigging loft and navigation school in its nave and observation gallery in the transept, is well along, while the newest building of all, the house for working with poison gases, was begun and completed in ten days. The clubhouse for the naval men is about ready for the trim.

This wooden village is amply protected from fire risk by water mains and outlets which have been laid according to a system organized early in the building operations. The Institute has moved a number of its hose carriages to sheds out of doors and in the midst of the newly built district, while the great power plant just across Vassar Street has six or seven couplings in its exterior walls to which hose may be instantly attached and the powerful pumps applied to putting out any little blaze. A main from the Charles River Basin will assure the most plentiful supply of water, while against possible breakdown somewhere the Institute has at the power house a tank containing two hundred thousand gallons of water for emergency use. The presence of these powerful fire prevention means is a measure of safety to the whole manufacturing district of Cambridge that clusters about Vassar Street and the railway.



THE INSTITUTE LIBRARY



TECHNOLOGY IN WAR WORK

A twelve-month year and an all-night shift. Taken in January from the ice.

THE VAIL LIBRARY IS NOW OPEN FOR TECHNOLOGY MEN

35,000 treatises pertaining chiefly to electrical engineering and many allied subjects have already been catalogued

THE Vail Library was presented to Technology in 1912 by Theodore N. Vail, the president of the American Telephone and Telegraph Company. The extensive collection of the English scientist, inventor, and railroad man, George Edward Dering, formed the nucleus of Mr. Vail's gift. Mr. Dering was an eccentric but extremely able man who had realized a considerable fortune from his patents, the most important of them being a "chair" for steam road rails and an electric light invention. During more than forty years the formation of this special library was the pet hobby of Mr. Dering. He placed unlimited orders with several book concerns for all books in whatever language published that were in any way related to electricity or electrical engineering. Besides, he attended many sales himself and collected in all more than thirty thousand titles. It was announced in 1911, shortly after Mr. Dering's death, that Mr. Vail had purchased the collection, and it was through the latter's generosity that the library is now quartered at the Institute. It is open to all who wish to take advantage of the exceptional opportunities it offers.

The library is considered to be the most complete one of its kind in the world. It is complete up to the date of Mr. Dering's death, and in spite of the unusual conditions that prevail and the enormous work required to prepare the library for use, Technology has endeavored to add to the collection every important work published since 1911.

When the library was shipped to Boston from London in 1912, the Institute had no available room for the ninety-six immense packing cases containing the books; so these were stored in the Metropolitan warehouse, near the new site in Cambridge. Here, under the direction of Prof. Harold Pender, formerly of the Electrical Engineering Department of Technology, the boxes were unpacked and the books sorted out and placed on shelves. The Library Research Assistant, Mr. E. W. Chapin, alphabetized a

rough list of about sixteen thousand cards. Many unbound periodicals were selected to be bound, parts lacking were ordered, and the real task of cataloguing was started.

An enumeration of the books at that time gave the following figures:

Bound books	6,222
Bound periodicals	264
<hr/>	
Total bound volumes	6,486
Unbound books	5,934
Unbound periodicals	4,189
<hr/>	
Total unbound volumes	10,123
Total volumes	16,609
Pamphlets (estimated)	17,795
<hr/>	
Grand total	34,404

Besides the books, there are in the collection about four hundred and fifty photographs.

Mr. Vail's gift included a liberal allowance for cataloguing, and this work has been in progress ever since the books were received. At the present time the catalogue contains over fifty thousand cards, which are arranged according to the Dewey decimal system. None of the regular printed library cards have been used in the catalogue; instead every card has been typewritten. Enough information is put on the card to enable a reader to tell at a glance whether or not he is interested in the particular volume. As in the Central Library, subject cards are of a different color from author or title cards, thus making it easier to use the catalogue.

From the large number of books relating to animal magnetism, mesmerism, and hypnotism it seems that the English collector had endeavored to make some connection between what is commonly known as animal electricity and electricity as we use the term today. There are hundreds of volumes in the library which have only a historic value; nevertheless, they contain much interesting material, in that they show the steady development of our conceptions of electrical science. Among these old works can be found volumes by Sir Isaac Newton, William Gilbert, Humphrey Davy, Benjamin Franklin, Count of Rumford, and many others.

Some of the treatises prepared by these men were presented to the Royal Society. An article dealing with these scientific curiosities has already been given to the public.

The parts of the Vail Library which are of greatest value to students of today are the volumes of more recent date; the number and genuine value of these increase as one approaches the last decade. The majority of these books are in English, though there are volumes in French, Italian, Scandinavian, Russian and German. In addition to the numerous works on electricity there are quite a few on aeronautics, electrochemistry, metallurgy, railroad engineering, electro-therapeutics, and radio-therapeutics.

Perhaps the most surprising thing about the library as it is today is the smallness of its present quarters. It was necessary, however, to house the collection temporarily outside of the Central Library until the work of cataloguing and binding the books could be completed; when it is finished the thirty-five thousand volumes will occupy a prominent space in the Rotunda, Room 10-550. For the convenience of students in Course VI, the Department of Electrical Engineering has put many of the most important books in the departmental library, Room 10-211, together with all the current periodicals. Hundreds of the bound volumes have already been placed in the central library.

Every book of the Vail Library has a special seal stamped on the binding, and bears, on the front inside cover, an artistic bookplate designed by Mr. Sidney L. Smith. It is an excellent likeness of the donor of the library with the inscription, "Vail Library. Gift of American Telephone and Telegraph Company to the Massachusetts Institute of Technology, 1912."

The library is open to all from nine until five o'clock daily, excepting Saturday, when it closes at one o'clock. Books may be borrowed as in the other libraries of the Institute.

THE UNDERGRADUATE WAR RECORD

Deaths and decorations for the youngest of the family

The editor has been feeling for some time that there is a gap in our organization of personal news. Stories are coming in every day about Technology men who have left school and are in the war while their classes are still studying. There is no class secretary as yet to collect their news and turn it in to the REVIEW. For the present, therefore, personal notes about all former students of the Institute whose classes have not yet been graduated, will be collected under one head, and published as fully as they can be secured.

Deaths and decorations make up most of the present collection, and we shall have more of each, before long. The editor asks that Technology men will send in to the REVIEW all news items about men known to be Institute students but whose classes are not yet graduated.

LIEUT. JAMES DEGRIER MAY, '18, Signal Reserve Corps, was killed May 9, when his aeroplane fell at Kelly Field, Texas. His death raised the total number of deaths at Kelly Field to date to fifteen. Lieut. Milo H. Miller of Waterloo, Ia., was critically injured in the same accident.

May, while a student at Technology, participated to a great extent in student activities and was one of the most popular members of his class. He withdrew from the Institute during the latter part of his sophomore year and went to New York, where he became engaged in scientific work, before enlisting in the aviation service. He was well known in Technology circles around New York.

At the time of his withdrawal from Technology, May was assistant stage manager of the "Tech Show," a member of the Technique Electoral Committee, and a member of the Executive Committee. In addition to these activities he was a member of many of the various societies and of the Beta Theta Pi Fraternity. He was a student of Course X.

By H. L. Coburn, '87

About two years ago there appeared, at the Technology Club in New York, a tall, slim, red-haired youngster with a most engaging smile; indeed, one might easily stretch that to a "cheerful grin." To meet him was to love him and to come to know him was to increase that regard, for "Jimmie" May was "true blue."

Too delightfully irrepressible to get down to the routine of college work, "Jimmie" did not shine as a student at Tech, but in his two years he established himself in the affection of all who knew him.

Coming to New York, he "drifted" for a time, seemingly unable to get down to the stern realities of life, but all the time making friends. During this period it was my privilege to have several heart to heart talks with "Jimmie" regarding his seeming irresponsibility, of which he was well aware, and finally in the winter of 1917 I got him a position on construction work in Oklahoma. There, away from the distractions of a big city, he hoped to get a better perspective and develop self-discipline. Lest it be inferred that "Jimmie" was dissipated, let me dispel that idea; he was simply an exuberant boy, unable to consider life seriously.

In the short time he was in Oklahoma he got down to hard work with the same enthusiasm that was characteristic of his play, and was making rapid progress and demonstrating his real worth. All connected with the work liked and respected him. When this country entered the war, "Jimmie," having no family ties, felt that it was "up to" him to go into service. He therefore enlisted and went to a training camp in Arkansas, whence he transferred to Aviation and went to "Kelly Field" for instruction. Again he went at his work with enthusiasm and rapidly developed into a skilful flyer. Last fall he was made an instructor before he received his commission, which came to him in January, as a First Lieutenant.

Later Lieutenant May was made Chief Instructor in "Stunt Flying," a branch in which he seems to have excelled, though rated as a careful and conservative aviator. Here also his personality won all hands; one of his chums tells me: "Jim was the best liked man in camp."

On Wednesday, May 8, while flying with another lieutenant, the machine was seen to drop in a "nose dive" from which it was

unable to recover, with a resulting crash. Lieutenant May was caught beneath the machine, and so badly crushed that he died shortly after reaching the hospital, without having recovered consciousness. His partner was badly injured, but survives having, however, no recollection of the accident.

Lieutenant May's body was escorted to New York by one of his close friends, Lieutenant Greer, and on Wednesday, the fifteenth, was buried in Sleepy Hollow Cemetery at Tarrytown, N. Y.

As Lieutenant Greer remarked "Jim has done his bit, and died for his country as truly as though on the field of battle." Another light-hearted, irrepressible boy has "made good," and his class, 1918, his fraternity, Beta Theta Pi, his alma mater, and his friends may well be proud of "Jimmie" May.

News was received last week of the death of ENOS C. SAWYER, '18, who has been serving in France with Battery A of the 101st Field Artillery. Sawyer died on April 21, as the result of wounds received in action. He enlisted in May, 1916, while a junior at the Institute and was sent to France last September with one of the first units to be sent abroad. Although Sawyer was unknown to many of his classmates because of the small part he took in activities, nevertheless he was liked and respected by those who knew him.

LIEUTENANT CYRIL M. ANGELL, '18, and LIEUTENANT W. K. B. EMERSON, '20, both of whom wore the Croix de Guerre for bravery, were killed in an aeroplane accident in France on May 14. Angell was the pilot and Emerson the observer. The Boston *Globe* correspondent who was an eye-witness tells the story as follows:

"WITH THE AMERICAN TROOPS IN FRANCE, May 14.—Three airplanes, two-seaters, passed over this little ruined village at not a very great height. It was mid-afternoon and just turning sunny after a drizzle in the early morning.

"Planes, as near the front as we are just at present, have ceased to be a treat, so this afternoon nobody paid any particular attention to these planes. They plunged into a low-hanging cloud. Then suddenly one of them came diving out of its lower surface at a steep angle, and hardly more than 500 feet above the ground. At least a dozen officers saw it come. Two of them insisted that

it was falling tail first, but the rest agreed that it made a straight dive.

"Down it plunged, and everybody waited, breathless, to see the aviator right himself with the little upward flip to which we have all become accustomed. But the direction never changed; the plane dove straight into a soft field, striking with a terrible crash and burying its nose four feet in the ground.

"Pilot and observer were instantly killed, if indeed the pilot was not dead before he began to fall. He was Second Lieutenant Cyril Matthew Angell, whose address on his identification card was given as Chicago, but who is said to have been a student in Massachusetts Institute of Technology and a resident of Brookline. The observer was George K. W. Emerson of New York, a second lieutenant of Artillery. Both men wore the Croix de Guerre, won in a recent action in the air.

"Only two explanations of the accident seem at all plausible. One is that in the shelling, a few minutes before, damage was done to the steering apparatus and it failed suddenly while the airplane was in the cloud. A more probable guess is that the aviator himself was wounded and either fainted or died at the wheel."

DECORATIONS

Three more of the former students of Technology who are "over there" have been awarded the Croix de Guerre. They are: CHESTER L. KINGSBURY, '18, WILLIAM H. MURPHY, '12, and KENNETH B. PAGE, '20. This brings the total of Technology men who have received special honors up to fifteen.

KINGSBURY, a corporal in Company A, 101st Engineers, came to the Institute in September, 1914, from Keene, N. H., taking Engineering Administration for his course. He entered heartily into the student activities, was an adviser in his second year to the incoming freshmen under the direction of the Technology Christian Association, became a member of the swimming team in 1914, the following year joined the Banjo Club, was a member of the class tug-o'-war, and in September, 1916, was general manager of the Combined Musical Clubs. He went into service at the end of the school year of 1916-17.

MURPHY, a Second Lieutenant in the 104th Infantry, is a Wakefield man, who, while at Technology specialized in Chemical

Engineering. He was popular among his classmates and has an excellent record as a student.

PAGE, whose home is Springfield, is a private in the Medical Corps, 104th Infantry. His preparatory school was the Choate, at Wallingford, 1916. Although he only attended the Institute for a year he was prominent in activities and earned the reputation of being a diligent worker as well as a good student. He was a member of the football and soccer teams. At the end of his freshman year he was granted leave from Technology to enter military service.

LIEUT. EDMUND C. BIGELOW of this city, serving with the Red Cross in France, has been awarded the Croix de Guerre for bravery. Bigelow, who a year ago was a freshman at the Massachusetts Institute of Technology, left to serve as an ambulance driver in France. Six months ago he entered the service of the Red Cross in charge of front line canteens and he has worked under heavy fire on several occasions.

HENRY L. DERBY, '19, Battery A, 101st United States Field Artillery, which has been in France since last fall, has been awarded the medal for "gallantry and especially meritorious service in action against the enemy."

Private Derby is the son of Mrs. Mary F. Derby, 81 Oxford Street, Somerville. He graduated from Somerville high school in 1915. When he enlisted in Battery A at Boxford he was about to enter the junior class at the Massachusetts Institute of Technology, where he was awarded a scholarship.

SCIENCE NOTE

THE pious St. Theodosius abode twenty years in the desert without so much as changing his raiment. But when a great battle raged near by he drew from his body his hair shirt and gave it to the Count of the East who waved it towards the Saracen enemy. And straightway the Saracen army fled in confusion and disorder. Now this was the first Poison Gas.—*A. D. Little's Journal.*

THE STUDENTS' SHIPBUILDING DRIVE

A large volunteer list to work this summer for A. F. Bemis'
generous prizes

WITH over two hundred and fifty Technology men signed up to work in shipping yards this summer, competing for nearly a thousand dollars in prizes offered by an Institute graduate, Technology's undergraduate committee on shipyard employment wound up its campaign with the closing of the regular school term, well satisfied that Technology undergraduates would be doing their part all along the coast to help defeat the Kaiser by American ships. Shortly before school closed the committee celebrated the success of its drive with a large and enthusiastic mass-meeting calculated to bring all the hesitating sign-ups into the fold. And the novel stunts and songs did the work.

The mass meeting was staged and advertised as "The Kaiser's Funeral." There was a real coffin, real pall-bearers and a burlesque funeral oration. Finally, every man who had signed up, nearly three hundred in number, was allowed, nay urged, to hammer a nail into the coffin that symbolized the shipbuilding industry that is to can the Kaiser. And while the hammers beat on the pine boards the popular star of this year's "Tech Show," Charlie Parsons, '19, was intoning:

"These are the Tech men who labor long
To keep America stout and strong,
To help France and England tattered and torn
Who fought for Belgium all forlorn,
Who saved the Allies
Who needed the ships,
That carried the men
Who won the war,
That canned the Kaiser,
Who lies in the coffin the Tech men built!

"Who'll escort him down to Hell?
'I,' said the Crown Prince,
'I'm due there long since;
I'll escort him down to Hell!'"

And to this heartening tune the undergraduates pledged themselves to do their bit in the shipping yards this summer.

The plans of the special committee, which was appointed by the Institute Committee, were laid before Junior Week in April and the campaign was opened the first week in May with a stirring speech by Frank McKibben, '94, member of the Emergency Fleet Corporation, who has been addressing colleges and technical schools all over the country, bringing this important work to their attention and has enrolled over twenty-five hundred students for summer work. McKibben is professor of Civil Engineering of Lehigh University and knows how to approach men.

McKibben's speech before a convocation of the whole Institute started the ball rolling in good shape and the undergraduate committee found its office a busy place for the next few weeks. The students found that any one—nearly any one—was fitted to be a shipfitter's helper at thirty-five cents an hour and that some were fitted for jobs as machinists. The following shipyards asked for quotas of fifty or over, so that most students found no difficulty in obtaining jobs near their home towns. The New York Shipbuilding Co. of Camden, N. J.; Lake Torpedo Co., Bridgeport; Cramp and Sons, Philadelphia; The Chester Co., Chester, Pa.; The Bath Iron Works, Bath, Me.; The Hog Island Yard at Philadelphia; the Fore River Works and the Victory Plant at Squantum; The Texaco Co., Bath, Me.; and recently the Charlestown Navy Yard, who, finding itself unable to obtain needed men which a similar bureau at Harvard had promised, turned to Technology with an offer to take all the men they could furnish up to a hundred.

The student publication, *The Tech*, next took up the campaign with editorials and original cartoons representing the Tech undertakers canning the Kaiser, the Tech men celebrating their first launching and the like. It was found that due to summer school many men could not work all summer, so six weeks was set as a minimum, and many men will do their work in the intervals of their summer school work.

It was decided that the Technology group at each yard should live together in barracks under a captain elected by themselves, thus tending to make their work not so much an individual enterprise as an Institute undertaking tending to make the men responsible for good work and straight living.

The last incentive to the Tech students was a generous offer of some nine hundred dollars in prizes offered by A. F. Bemis, '93, the well-known jute magnate of here and India. There were to be individual prizes ranging as high as a hundred dollars for the best work done by any Tech man in shipbuilding work, the awards to be made from the shipyard management's reports. There were also ten prizes of fifty dollars each, for the best individual record in each shipyard, and for the best letter from each shipyard making recommendations of means to bring the Institute into closer coöperation with the shipyards.

On the whole, even without the prizes it was found that the plans of leaving the enrolments to be managed by a representative undergraduate committee worked very well, better than the Harvard method, for instance, where the work of getting men for the shipyards was made a part of the regular college employment office, with no particular campaign or incentive to get men to sign up. As President Maclaurin well said in a special message to stimulate the recruiting: "General Pershing's recent message shows how the men in the fighting line appreciate the value of the support they receive in the shipyards. I hope that all Technology students who have not settled their plans for the summer will give more earnest consideration to the opportunities for patriotic service in the shipyards and that they will not hesitate to take advantage of these opportunities unless they see their way clear to more serviceable employment elsewhere. In these days no other consideration should count except the fitness of the individual for the service contemplated and the value of that service to the nation in its effort to uphold the national ideals."

The answer to that appeal is the long list of men who will spend part of their summer, at least, as members of the Technology units in the shipping yards along the Atlantic Coast doing their bit to help coffin the Kaiser.

(FROM *The Tech*)

At the Shipyard Smoker, held last week, the funeral services of Wilhelm von Hohenzollern were delivered by a committee of Technology joy-killers before a congregation of sad and pathetically inclined students. It is hoped that the ensuing funeral masterpieces will not, on account of the lapse of time since the heart-rending exercises, cause any serious results.

As the pall-bearers bore the black-veiled casket into the presence of the attendants the following invocation was delivered by the undertaker:

“ Who’ll can the Kaiser?

‘ I,’ said Uncle Sam,

‘ I’m the man, I am,

I’ll can the Kaiser!’

“ Who’ll catch the Beast?

‘ I,’ said La Belle France,

‘ I’ll stop his mad dance,

I’ll catch the Beast!’

“ Who’ll pull his teeth?

‘ I,’ said John Bull,

‘ Because I can pull,

I’ll pull his teeth.’

“ Who’ll toll the bell?

‘ I will,’ said Italy,

‘ I’ll toll it loud and prettily,

I’ll toll the bell!’

“ Who’ll escort him down to Hell?

‘ I,’ said the Crown Prince,

‘ I’m due there long since;

I’ll escort him to Hell!’

“ Who’ll build the coffin for him?

‘ I,’ said the Institute,

‘ I’ll help lay out the brute,

I’ll build the coffin!’

“ Who will drive in the nails?

‘ I,’ said the Shipping Yard,

‘ I’ll hammer long and hard;

I’ll drive the nails!’

“ And all the devils in Hell

Fell to laughin’ and scoffin’

When they heard the nails driven

In the Kaiser’s coffin.”

At the conclusion of the service the benediction was delivered amid the sighs and groans of the multitude, while in sonorous tones the following epic resounded through the halls of death:

"This is the coffin the Tech men built.

"This is the Kaiser who lies in the coffin the Tech men built.

"This is the war that canned the Kaiser who lies in the coffin the Tech men built.

"These are the ships that carried the men that won the war that canned the Kaiser who lies in the coffin the Tech men built.

"These are the Allies who needed the ships that carried the men that won the war that canned the Kaiser who lies in the coffin the Tech men built.

"This is Belgium all forlorn who saved the Allies who needed the ships that carried the men that won the war that canned the Kaiser who lies in the coffin the Tech men built.

"This is France and England tattered and torn who fought for Belgium all forlorn who saved the Allies who needed the ships that carried the men that won the war that canned the Kaiser who lies in the coffin the Tech men built.

"This is America sturdy and strong who helped France and England tattered and torn who fought for Belgium all forlorn who saved the Allies who needed the ships that carried the men that won the war that canned the Kaiser who lies in the coffin the Tech men built.

"These are the Tech men who labor long to aid America sturdy and strong who helped France and England tattered and torn who fought for Belgium all forlorn who saved the Allies who needed the ships that carried the men that won the war that canned the Kaiser who lies in the coffin the Tech men built.

AMEN!"

SPRING ACTIVITIES OF THE UNDERGRADUATES

By HOMER V. HOWES, '20

NEARLY all the social activities of the spring term were centered in Junior Week.

The Technique Rush opened the week. Several new features were instituted this year, among which were the greasing of the top of the fort and the burning of a sulphur compound about the scene of the slaughter. Both of these novelties added greatly to the difficulty of securing the coveted slabs. Over one hundred and fifty men entered the Rush, and the winner, W. R. Mackay, '19, had a harder fight than winners in previous years. The time-honored Technique Band was conspicuous by its absence, and in its place the Harvard Radio Band rendered the funeral music.

The Show gave five performances: two at Smith College, two at the Boston Opera House, and one at Somerville. Richard Harrington, '18, was the author of the show, "Let 'Er Go," and also played the leading male part. Kenneth Akers, '20, was the leading lady, while Charles Parsons, '19, sang the most popular song hits. All performances were well attended, and the audiences appeared well pleased with the acting of the Technology students. The proceeds were devoted to the interests of the American University Union, and in order to make these as large as possible the annual show dinner was omitted.

The Junior Prom and the Spring Concert were given as usual. The decorations and preparations were less elaborate than in other years, especially in the case of the Prom, and the money thus saved was applied to the purchase of Liberty Bonds.

In athletics, Technology has been unusually successful. The spring track season opened with the sophomore-freshman cross-country run, in which the freshmen were victorious. On April 27 the Technology two-mile relay won the open collegiate race at the Pennsylvania Carnival, and by this race carried away the Meadowbrook Challenge Cup. This is the first time that the Institute relay team has been victorious in the annual carnival, and the race of April 27 placed it for the initial time in the champion-ship class. Technology easily captured the New England Inter-collegiate Track Meet for the second consecutive year, when it

rolled up a score of 74 points on May 18 at Tech Field, against 25 of its nearest rival, Brown. The season closed June 1, when the Institute team, handicapped by the loss of several men who were not through with examinations, won sixth place in the I. C. A. A. A. A. meet.

The Swimming team ended its third undefeated season with a banquet, at which Dr. Rowe of the Athletic Advisory Council awarded Capt. Max Untersee, '19, R. S. Bolan, '19, and A. E. Wales, '19, the "T." The following members received their "s. T. t.": C. D. Greene, '21; W. H. Young, '21; O. H. Trowbridge, '21; A. C. Walker, '19; J. E. Shaw, '21; and J. J. Winn, Jr., '21. Seven men of the freshman team were also awarded their numerals.

The Tennis team had a very successful season, winning seven matches and losing only one. The teams defeated are Trinity College, 6-0; Harvard, 6-0; Holy Cross, 5-1; Bowdoin, 6-0; Amherst, 4-2; Williams, 4-0; Worcester Polytechnical Institute, 6-0. Yale, the only victor against Technology, won by a score of 6-0. In the Intercollegiate Meet Wei and Brockman won the doubles; Brockman was a runner up in the singles; Wei was beaten in the semi-finals by the winner of the singles. The team elected L. A. Boyden, '20, manager for next year and W. F. Kimball, '19, captain.

A freshman crew was formed this spring and started well by defeating the sophomores; they lost later in the season, however, to Huntington School and Noble and Greenough. Crews will practice all summer, and several races are pending, including one with the West Lynn Boat Club. The crew to represent Technology will be picked from all classes. In the fall a crew race is to be a regular event of Field Day, and will count in the final score.

The fraternity baseball championship cup was won this year by Alpha Tau Omega. Theta Delta Chi and Phi Sigma Kappa won in their respective leagues, but were defeated in the final series. Alumni may be interested to know that Theta Chi won the \$175 grandfather clock for having the highest average in scholarship.

The activities of the professional societies and clubs have been rather quiet. The Aero Club, however, had one very interesting meeting May 17. Dinner was first served in the café, after which Sergeant Wellman of the Lafayette Escadrille addressed the club and told of his many thrilling experiences in France. After elect-

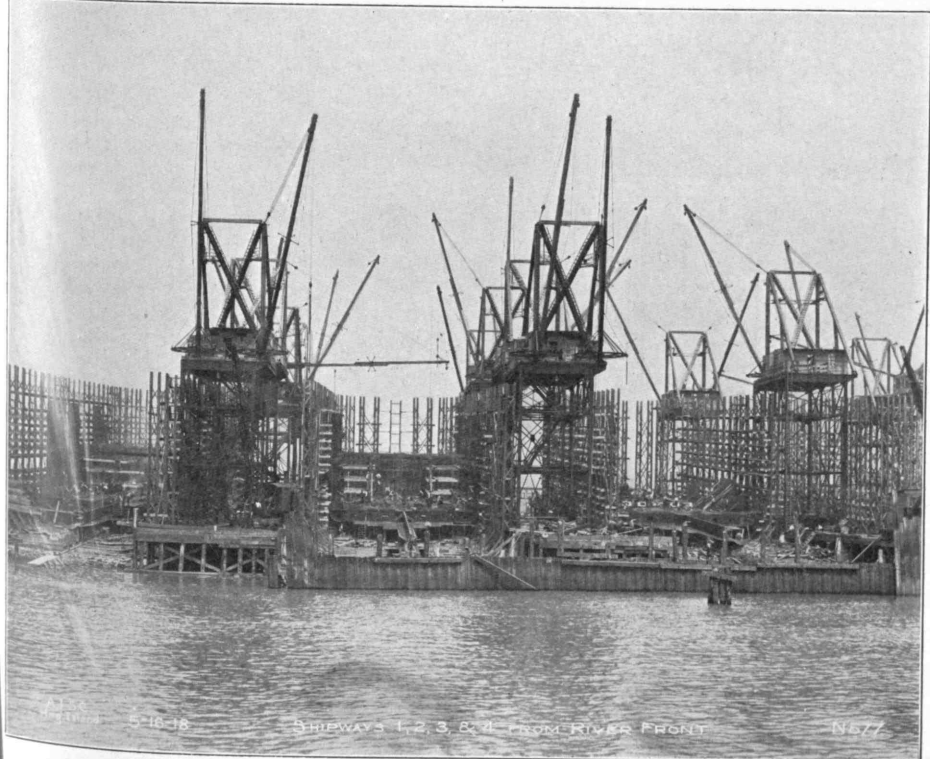
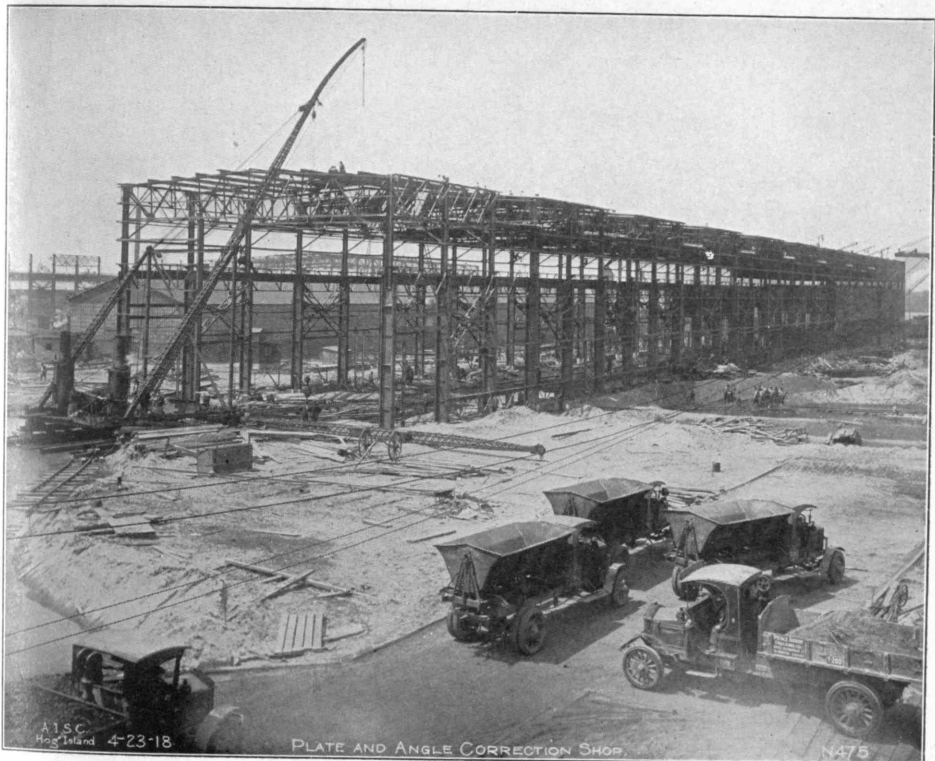
ing officers for next year, a tour was made of the naval hangars. The following men were elected officers: President, E. Wason, '20; vice-president, Charles H. Tavener, '19; secretary, T. H. Copeland, grad.; treasurer, F. W. Griebel, '19; executive committee, R. A. Cartwright, '19, E. F. Pierce, Jr., '19, and E. A. Richardson, '19.

In an endeavor to help the shipping board in its present emergency, the Institute Committee appointed a sub-committee to investigate the feasibility of student labor in the shipyards this summer. As a result, 244 men signed up. Money prizes amounting to \$900 were offered by A. F. Bemis, '93, chairman of the Corporation Visiting Committee, to students working in the yards for the best work done, for the best reports of work done during the summer, and for the best suggestion for bringing about better coöperative relations between the Institute and the shipyards. The campaign ended in a big smoker at which several "stunts" were performed such as driving nails into a wooden coffin, known as the Kaiser's coffin. The men were then addressed by men connected with shipyard work.

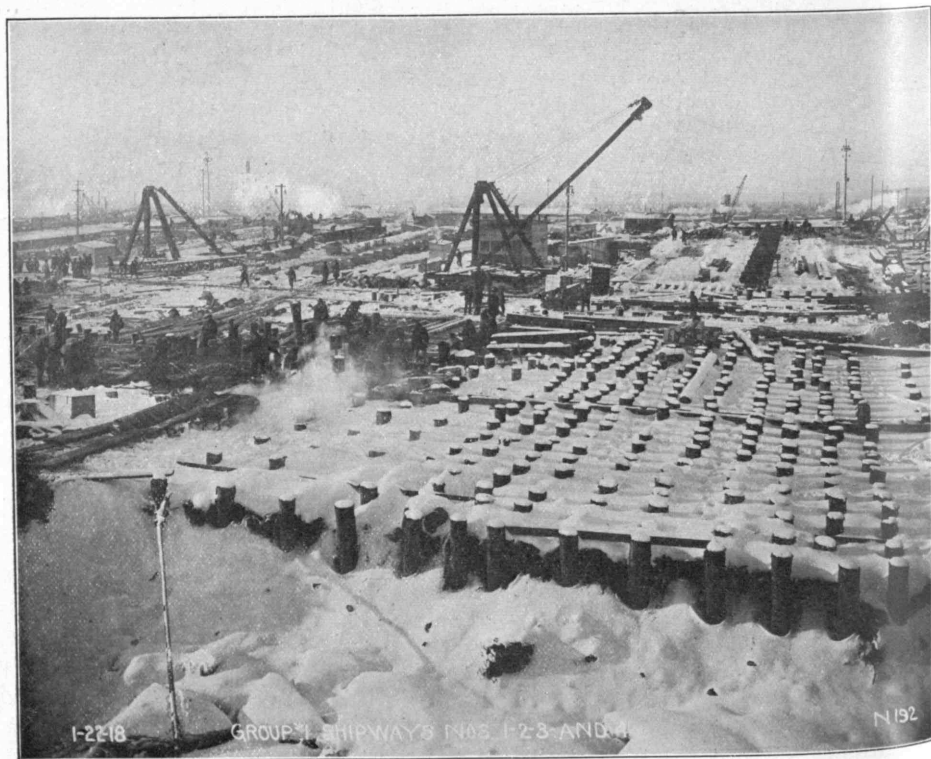
Another unusual event of the term was the raising of the Guynemer Fund. Georges Guynemer was a French Ace, of about the same age as the average college student, who, after bringing down over one hundred German planes, was finally killed. As a matter of sentiment, the mayor of Compeigne, France, Guynemer's native city, wrote to the deans of various American colleges asking students to contribute funds for a statue to be erected to the memory of Guynemer. The Institute committee placed the collecting of the fund in the hands of a sub-committee with the result that over \$300 was raised. The Institute committee, by the way, will continue to meet all summer.

The officers' training conference of College Christian Associations met the last of April at Technology, and over eighteen colleges were represented. This is the first time that such a conference has been held at the Institute. The T. C. A. has been very unfortunate in losing its general secretary, Mr. A. G. Cushman, who resigned to undertake Y. M. C. A. duties at Camp Lewis, Tacoma, Wash.

The 1920 Electoral Committee chose the following men to publish *Technique 1920*: Editor-in-chief, N. J. Abbott, Jr.; societies editor, K. Akers; portfolio editor, J. Barker; athletics editor, J. Kellar; grinds editor, R. McNear; statistics editor,



HOG ISLAND



HOG ISLAND

K. Roman; faculty editor, W. L. Copen; photograph editor, E. W. Freeman; business manager, G. E. Burt; associate business managers, T. Bossert and L. D. Wilson; treasurer, M. C. Burroughs.

Following the custom inaugurated last year, class elections were held early in May.

The juniors elected Robert P. Hackett as president; James W. Reis, Jr., vice-president; Charles J. Parsons, secretary; John S. Coldwell, treasurer; William H. Banks, Jr., and George C. McCarten, Institute committee; John Meader and Amos N. Prescott, executive committee.

The sophomores chose John C. Nash for president; John J. Hines, Jr., vice-president; Leland D. Wilson, secretary; Vaughn J. Byron, treasurer; Edwin D. Ryer and Frank L. Bradley, Institute committee; John W. Kellar and William M. B. Freeman, executive committee.

The freshmen selected Rollin F. Officer as president; Lawrence W. Trowbridge, vice-president; John N. Worcester, secretary; Donald F. Carpenter, treasurer; Waldo Adams and Garvin Bawden, Institute committee; William R. Barker and William D. Morrison, executive committee.

It is of interest to note that forty Technology men are in the Fourth Officers' Training Camp and forty-five in the R. O. T. C. Camp at Plattsburg.

CONVENTION ON PUBLIC HEALTH AT M. I. T.

THE Massachusetts Medical Society, the Committee on Public Health and the Massachusetts Institute of Technology held, for four days at the end of May, a convocation and four-day school of public health, which attracted the attendance of some fifteen hundred men and women officially connected with public health work in this state. The convention opened May 26.

The program included speakers from Technology, Harvard, State Department of Health, a number of state institutions, the Boston School Department, Simmons, American Public Health Association, and the Joint Council on Public Health Education, Shanghai, China.

AN IMPORTANT GIFT

At the June meeting of the Corporation President Maclaurin announced a gift of \$400,000 from an anonymous benefactor. The income of this fund is to be available for the general purposes of the Institute during the war and thereafter is to be applied to the development of courses in Chemistry and Physics.

It is a matter of the first importance in a school of applied science to develop the fundamental sciences of Physics and Chemistry as thoroughly as possible. The Institute has already a strong staff in these departments. In view of the relations between Harvard and Technology it is interesting to note that Technology owes much both in Physics and Chemistry to men who have long been prominently associated with Harvard. Professor E. C. Pickering, who has presided with so much distinction over the Harvard Observatory for many years, was one of the first professors of Physics at the Institute and laid the foundations of its laboratory methods. One of Professor Pickering's pupils, Professor Cross, carried on the Pickering tradition and many of the alumni have earned great distinction as physicists both in pure science and in applied, notably George E. Hale, one of the leading astro-physicists in the world, director of the Mount Wilson Solar Observatory and chairman of the National Research Council, and in the field of applied Physics Dr. Coolidge, of the Research Laboratory of the General Electric Company, whose notable contributions to the improvement of the electric lamp and the X-ray tube have been amongst the most important ones to practical science in recent years. The first professor of Chemistry at the Institute was Charles W. Eliot, who left this post to become president of Harvard. Many noted men have succeeded him and some of the ablest are happily still in the service of the Institute, whose department of Chemistry is "easily first amongst the educational institutions of America," as regards the number of men of eminence on its staff, according to the impartial testimony of *American Men of Science*. A great group of the graduates of this department are now serving the country in the development of its chemical industries and in the prosecution of research with reference to war problems. Among this number are ten of the

professors of Chemistry who have been wholly relieved from regular academic duties to devote themselves to the national cause.

The building up of strong departments of Physics and Chemistry at a school like Technology, which draws men in large numbers from all parts of the country, is a matter of national importance. There is not only a great need for well-trained chemists and physicists to solve the vital problems of the war but there will be a similar need in the industrial struggle that will come when peace is declared. The opportunities presented by the war are being seized upon by alert Americans and great chemical industries are being built up which will need the support of the most highly trained experts to carry them on successfully under the conditions that will later prevail. It is interesting to note that the rising generation also recognizes the opportunity, as evidenced amongst other things by the fact that out of the 620 freshmen at the Institute of Technology this year 160 are being trained for the profession of the chemist. If this supply is maintained, within a few years the Institute will be graduating every year considerably over a hundred well-trained chemists available for the advancement of science and for the development of the chemical industries of the country.

HONORS THRUST ON HUMPHREYS

WALTER HUMPHREYS, '97, and the editor of the REVIEW week-ended very pleasantly at New Haven around May 10, being entertained to exhaustion by the Yale men who were the hosts of the alumni secretaries' annual conference. According to the confirmed etiquette of this part of the world, Mr. Humphreys was re-elected treasurer. From the reports of thirty other alumni secretaries Technology seems to be doing very well—in comparison. The Institute graduates have no deficits to raise and no legislatures to be afraid of, and the editor does not have to wonder where his subscription list has scattered to; in short, we seem, by comparison, to be pretty well organized. And the Taft Hotel has a quite civilized café.

BOOKS FOR TECH MEN IN SERVICE

Written for the *Transcript* by Mrs. Henry G. Pearson and
reprinted to encourage the alumni to "loosen up"
on books

MRS. PEARSON writes: "Some persons suppose that the American Library Association, when it made its drive for 'A million dollars for a million books for a million men,' served notice on others to keep off the ground. Nothing is further from the truth. The officials in charge of the camp libraries heartily commend every one who is getting reading matter to men in service.

"An encouraging example is offered by the book room attached to the Technology Workroom in the old Rogers Building. The books that are constantly being sent in keep numerous large glass bookcases full; the current magazines and newspapers mount daily to a pile of thirty or forty. Every day the work goes forward of making "story-books" from old magazines, packing and bundling books, rolling up newspapers.

"This reading matter goes chiefly to Technology men in service, for the use of themselves, their friends, their commands. Books are sent out, fifteen or so at a time, in the 'M. I. T. Portable Bookcase,' as the legend reads, a light wooden box with an iron handle in its sliding cover; or they are mailed singly to men at a great distance. A book goes to each Tech man whenever he sends in a card with his latest address; a newspaper to every Technology engineer across the sea; either a book or a newspaper to every Tech man on board ship. Shipboard is a place most uncertain as to mail service. Recently came a letter from a man off the South American coast, expressing gratitude for the reading matter that had helped him to entertain two officers who were on board as passengers, and adding, in his own behalf, that he would gladly 'swap a sweater for a Philadelphia paper.' He had not seen one in three months. Almost as remote from reading matter are the men who are quarantined within a cantonment; for the time being, the camp library can be of no use to them, and everything sent by the book-room is worth its weight in gold.

"Chiefly to Technology men these books and papers are sent,

but no urgent request from other quarters is refused, and it is surprising how often in these cases a Tech man sooner or later plays a part. Of course the portable bookcases in the hospital wards at Camp Devens may at any moment bring double pleasure to an invalided son of M. I. T. Some of the forts down the harbor have the bookcases, and now some bookcases and a quantity of old magazines are to be sent to the two boats off Boston which are training men to handle the new cargo ships for carrying supplies overseas.

"Of course many men in our Army have precious little time or energy left for reading, but there are not many who do not long for print and who will not manage to enjoy it, if it is put into their hands. The Technology book-room has on record various amusing tales of how the reading matter hit the mark. There is the anecdote of the Greek drafted soldier who fell eagerly on a translation of Æschylus's "Agamemnon," and that of the Tech graduate on a man-of-war who got special pleasure from the newspaper which formed the inner wrapper for his book. The paper contained an account of some incident in which his ship had taken part. The burden of the acknowledgments is gratitude, warmed to enthusiasm, in the case of Technology men, by this proof 'that good old M. I. T. has not forgotten us.'"

Books may be sent to the War Service Auxiliary, Rogers Building, 491 Boylston Street.—*Editor*.

THE GUYNEMER FUND

THE campaign held at the Institute to collect money for the Georges Guynemer Monument which is to be erected in the little town of Compeigne, France, was a decided success, exceeding the expectations of the committee in charge. By present indications over three hundred dollars were subscribed to the fund. The average contribution was twenty-five cents and about 50 per cent of the student body contributed to the cause.

Through the coöperation of the faculty and the many students who acted as assistants to the committee, every course and section was covered.

IKE LITCHFIELD CALLS FOR MECHANICS

A letter from Washington on the need for
men in industry

ACCORDING to an estimate by I. W. Litchfield, '85, chief of the clearance section of the Federal Employment Service, the manufacturers of non-essentials will have to release as many mechanics as possible for war industries if production is to be increased. The lack of mechanics and toolmakers is retarding war production so that it is now 75 per cent of what it might be.

Following is a letter addressed by Mr. Litchfield to the state directors of the Public Service Reserve:

"The demand for machinists and toolmakers is only second to that for common labor. There is apparently a deplorable lack of these trades to supply the tremendous demands made upon us. We are instituting a national investigation of the available men in these trades throughout the country with the idea of ascertaining the number and locations of those who are employed in what are obviously non-essential industries.

"We are suggesting to contractors of government material who are pressed for machinists that they make a patriotic appeal through local commercial bodies to the manufacturers of non-essentials for contributions of this class of labor. In some cases we are offering to furnish one machinist for every one contributed to war work locally.

"We have made a cursory investigation in a few localities devoted largely to pressing war work, and the general report is there is only about 75 per cent production because of lack of skilled labor. This condition must be remedied, and I am writing this as a preliminary to a concerted plan for securing greater local coöperation, which we hope to take up later through the Reserve. Any suggestions that you have along these lines will be gratefully received.

"Very truly,

"I. W. LITCHFIELD.

"Clearance Section, United States Employment Service."

TECHNOLOGY MEN IN WASHINGTON

An interesting meeting of the alumni at the Capital

AN unusually successful meeting was held at the University Club on June 5, at which the attendance was about eighty. Numbered among the prominent men present were Prof. H. W. Tyler, '84, Head of the Department of Mathematics at the Institute; Maj. Samuel C. Prescott, '94, Professor of Industrial Microbiology at the Institute; Lieut.-Com. W. E. Parker, '99, stationed at the Naval Observatory; H. A. Morss, '93, of the Priorities Board, "Ike" Litchfield, '85, G. E. Merryweather, '96, of the War Industries Board; Darragh DeLancy, '91.

Three moving picture films were presented, one showing scenery in the Canadian Rockies, another preparations of the Navy for defensive work, and the third army construction work in Belgium. Some very interesting speeches were made. First, Harry Tyler, whom we all used to dread, came across with some dry humor. He is in Washington temporarily showing the Public Service Reserve how to manipulate statistics. Maj. Sam Prescott remarked on his feeling at home in Washington among so many Tech men, then gave us a glimpse of his work in connection with food storage for the troops, a most important conservation problem. Lieutenant-Commander Parker told us of the relation of the Geodetic Survey to the active service and his transfer from the survey to the navy. At the Naval Observatory he has been inspecting and classifying the glasses donated by individuals to the navy after the call for them had been sent out by Assistant-Secretary Roosevelt of the navy. The naval men were much surprised and gratified at the large number of high-grade glasses owned privately. Over thirty thousand have been presented to the Navy. There is still a shortage of sextants for navigators.

"Ike" Litchfield, our indispensable Tech man is here in charge of the federal employment of all labor, skilled and unskilled, in the country. He told us of the causes of the present shortage of highly skilled mechanics, especially toolmakers, among which were the lack of effort on the part of semi-essential industries to get themselves classed properly by the draft boards when their

men were first drafted. Another cause was the patriotic feeling of many of the men who joined the army. The shortage is now so acute that effort is being made to change the draft status of highly skilled men now in Class II in case Class II should be drafted. The Public Service Reserve, originally organized for shipping and shipbuilding emergencies, has now over 300,000 registrants. One of the accomplishments of Mr. Litchfield's bureau has been the conservation of labor by eliminating much wasted labor in such things as too rigid inspection standards on machine parts.

Darragh DeLancy spoke of the organization of a new alumni association in New Haven County, Conn. His experiences on the draft board in the munitions district of Connecticut were very interesting.

Con. Young, '96, told some amusing stories in dialect. The meeting broke up about 11 P. M.

It is estimated there are at least five hundred Tech men in Washington. The Secretary is revising the mailing list so as to account for all new men in town as well as older men whose addresses have changed. It is desired that all new men, as well as older ones who have not done so recently, communicate with the Secretary. An automobile picnic of the regular Washington type is being planned on to take place the first week in July. Newcomers in Washington and visitors are cordially invited to get in touch with the Secretary, if they wish to be notified regarding this.—*E. J. Casselman, 3519 Lowell Street, Washington, D. C.*

THE GOVERNMENT TAKES TECH STATISTICIAN

THE Department of Labor has opened a special educational service under the direction of Roger W. Babson, '98, of Boston, with an office in Room 816, Department of Labor Building, 1712 G Street, Washington, D. C.

This office has made a survey of the various lines of work now being carried on in industrial fields. Any one wishing to get in touch with those working on any special phase of the labor problem, either in Washington or elsewhere, may communicate with this office for suggestions.

TECH SENDS FIFTEEN TO TRAIN FOR OFFICERS

THE military department at Technology has issued the list of names of the men who were selected and ordered to the fourth Officers' Training Camp at Ayer. Although the quota for Tech was not filled, only fifteen men answering the call, this is accounted for by the fact that only men in the senior class and graduates were allowed to go. Those undergraduates who desired military training during the summer will report at Plattsburg.

Percy Marks, a graduate of University of California and Harvard, one of the most popular instructors in the Institute, chose to receive his appointment from Technology.

The list of men selected and assigned to Camp Devens follows: Alfred K. Althouse, Norristown, Pa.; Georgius Y. Cannon, 37 Bay State Road, Boston; Grant H. Burrows, 93 Eldredge Street, Newton; James L. Clark, 80 Clement Street, Newton; Everett S. Coldwell, Technology Club, New York; Frederic C. Eveleth, 308 Newbury Street, Boston; Donald C. Goss, 39 Deer Cove, Lynn; Edward S. Howe, Kingston; Asher W. Joslin, 134 Stratford Street, West Roxbury; George Leavitt, Bayonne, New Jersey; William Liddell, 23 South Canton Street, Lowell; Otto Lorenz, 17 Gramercy Park, New York City; Percy Marks, Technology, Cambridge; St. Elmo T. Piza, 43 West 83rd Street, New York, N. Y.; Charles H. Watt, 14 Hill Street, Lexington.

SIX GRADUATES COMMISSIONED AFTER THREE WEEKS OF TRAINING

Six students of Technology who left the Institute to attend the Engineers' Training Camp at Fort Lee, Virginia, are highly elated over the results of their three weeks' intensive training, and are happily sporting the gold bars of second lieutenants in the Engineer Corps, National Army. The successful candidates for commissions are: J. S. Carter, '19, J. H. Chase, '18, M. Pierce, '18, C. H. Wilkins, '14, H. L. Wirt, '18, and W. Wyer, '18. Wyer said, referring to the men's commissions, "We got them, firstly, because we were graduates of Technology, and secondly, because we knew infantry drill pretty well. Therefore, in spite of what I thought at the time, I surely am blessing summer camp drill."

INTENSIVE SUMMER COURSES SUCCESSFUL

A large registration in the senior and freshman classes

THE summer registration has this year exceeded all expectations, totaling about six hundred and sixty students. These are divided between the regular summer courses, in which about three hundred have registered; the junior class, in which there are in the vicinity of two hundred and seventy-five; and the junior freshmen, totaling about ninety-five and possibly a hundred. These three groups of students are to pursue their studies in the same intensive manner as the senior class in their cram course which graduated a large percentage of them in January instead of June.

The class of 1919 is particularly affected by the intensive twelve weeks' course which they are to pursue this summer. The work which has ordinarily been covered by the senior class during their first term will be completed by the present juniors in this seemingly short period of three months. By this means they will complete their four years' course in about three and a half years, finishing the work in December or January. The purpose of this cram course is to free the students for active government or military work but to complete their Institute work first, in order not to disturb the consecutiveness of their study.

The junior freshmen who entered last February will be able through the summer courses to complete their first year and join in October, on equal terms, those sophomores who entered school last October.

DRIVE PASSES \$55,000

Technology Liberty Loan campaign is oversubscribed

BURSAR H. S. FORD announces that the total of subscriptions to the Technology Third Liberty Loan campaign has passed the \$55,000 mark.

Statistics of the buyers of bonds show that thirty-two officers of the Institute and faculty, including instructors, have invested their money with the government, while the names of thirty-seven students and twenty-seven employees also appear on the list of subscribers. Many activities have been added to the list, and the Honor Roll now includes the following: The Institute, Chemical Society, Civil Engineering Society, Corporation XV, Technology Minstrels, Aero Club, Undergraduate Activities Loan Fund, Lambda Chi Alpha Fraternity, Institute Committee, Interfraternity Conference, Phi Sigma Kappa Fraternity, Student Tax Contingent Fund, Technology Christian Association, Combined Musical Clubs, Junior Prom Committee, Architectural Society.

COAST ARTILLERY TRAINING CAMP

Chances for older men technically trained still open

A. C. DORRANCE, president of the Class of 1914, now Captain in the C. A. A. C., sends the REVIEW a photograph of four prominent Technology graduates who are instructors in the Coast Artillery Training Camp at Fort Monroe, Va., (the photograph is to be found elsewhere in this issue) and suggests that "although so many opportunities have been offered to undergraduates of technical schools to enter the camp, this, it is thought does not hold true among the alumni, for there are many men who for business reasons were unable to enter the first officers' training camp who are now available."

He asks, therefore, that the REVIEW let the alumni know that there still are chances for technically trained men to enter the Coast Artillery Training Camp, Fort Monroe, Va.

Inquiries should be addressed to the Director of Instruction at the address above.

A PIER IN THE BASIN

FOR the use of the Naval Aviation Detachment the Institute is building a pier in the Charles River Basin against the embankment wall directly in front of the Walker Memorial. The need of the naval men for an opportunity to land from their boats and cutters is the prime reason for this improvement. The landing will be a platform 40 feet square butted against the retaining wall of the basin, solidly supported on five rows of oak piles, and 30 inches above the water level. The piles will be a foot in diameter, while the fenders and their companion piles up and down the basin will rise to a height of 4 feet, being finished with rounded tops. To reach the platform from the Esplanade there will be two runways 75 feet long and 8 feet wide, one approaching it along the wall from each side. From the platform at its outer edge the companion piles will be deployed up and down the river at 25-foot intervals, affording entrance to twelve berths for naval cutters.

ALL-COLLEGE RALLY A SUCCESS FINANCIALLY

THE All-College Rally at the Boston Opera House last March, when James M. Beck of New York made his much discussed speech against any peace parleys at this time, resulted in the clearing of more than \$1000 for the work of the American University Union in France. The fund will be turned over at once to Roger Pierce of Harvard, the secretary of the union. The expenses of the affair were about \$1300. More than forty colleges and universities participated in the rally, and the committee representing them, and especially the secretaries of their Boston Alumni Associations, constitute an organization that may be very useful year by year. The fame of the rally spread across the country, and Buffalo, Indianapolis and Ithaca are among the cities that have held gatherings, or which are planning to hold them, patterned on it. Moreover, the rally gave a lot of worthwhile publicity to the splendid work that the American University Union is doing for our college boys overseas.

FIRST IN WAR, FIRST IN PEACE, FIRST IN KNITTING, TOO—THE EVER-EFFICIENT TECH MEN

SOME of the most substantial men in and around Boston are already knitting for the soldiers. Others are taking lessons. Among those who are expert are: Prof. Robert H. Richards, '68, of Jamaica Plain, formerly the head of the metallurgical department of Technology, and William Lyman Underwood, '98, of the biological department of the Institute.

Professor Richards learned to operate a knitting machine at the same time his wife was taught. They have knitted since last June about two hundred and thirty-five pairs of socks which they turn in to the special aid, most of their finished work going to the Technology Auxiliary.

Mr. Underwood, too, has mastered the intricacies of the knitting machine, and his proficiency is such that he can turn out one sock in twenty-one minutes, a feat which would take an expert woman to do by hand about seven hours. He has knitted since December one hundred and thirty-two pairs of socks, which American soldiers are now wearing. Mr. Underwood's only son is a non-commissioned officer at Camp Devens and was a Harvard 'varsity football player.

Also Lieut. Chauncey C. Batchelor, formerly instructor in English, at present in the Depot Brigade at Camp Devens and recently appointed military instructor at Dartmouth College, was hailed in a Boston newspaper not long ago as the champion knitter of the Camp. We understand that there is a movement on foot to have the Institute teaching staff knit during classes. It's a soothing occupation . . . and lecturing won't interfere with it.

MARINE AVIATION SCHOOL STARTED

The Institute is furnishing the facilities for the first marine aviation ground school

A NEW branch of the service has come to the Institute. There are already two aviation sections which have ground schools here, and now the Marine Corps, the "Soldiers of the Sea," are establishing the first ground school for their aviation section. Although the Marine Corps have had an aviation section for about a year, and have about two hundred flyers who have "won their wings," the Institute has the honor of furnishing the facilities for their first ground school. About twenty-five men will come here at intervals of two weeks, and the school will be one-fifth as large as the Navy School. Men who are interested in this service should apply at the recruiting office of the Marine Corps, or write direct to the Marine Corps headquarters, Washington, D. C. To be acceptable a man must have had mathematics through trigonometry, or approximately two years of college. After completing the ten weeks' course at Cambridge, the men will be sent to Miami, Fla., where the flying school is located.

Applications for enlistment may be obtained from Lieutenant Archibald, in the Walker Memorial.

STUDENT SHIPBUILDING

President MacLaurin's message to the undergraduates

"GENERAL PERSHING's message shows how men in the fighting line appreciate the value of the support they receive in the shipyards. I hope that all Technology students who have not as yet settled their plans for the summer will give most serious consideration to the opportunities for patriotic service in the shipyards and that they will not hesitate to take advantage of those opportunities unless they see their way clear to more serviceable employment elsewhere. In these days no other consideration should count except the fitness of the individual for the service contemplated and the value of that service to the nation in its effort to uphold the national ideals."—RICHARD C. MACLAURIN.

A BUSY SUMMER FOR THE INSTITUTE

Seniors and junior freshmen to work hard

FOR its summer schedule this year the Institute will maintain besides the regular summer courses and the Civil Engineering camp at East Machias, special studies for the freshmen who entered the Institute in February and others anticipatory of the fourth year by the juniors, who will thus be ready for war service in January, 1919, five months ahead of the regular graduation time. Besides these, some three hundred undergraduates will be engaged throughout the summer in the very necessary shipyard help to which Technology counts on sending six to seven hundred men.

The junior first-year class which entered the Institute in February, a group of more than one hundred young men from high and preparatory schools, chosen carefully for physical ability as well as mental capacity, was accepted with the understanding that the students should continue through the summer and enter the second-year class with those who registered at the Institute in September last. The closing exercises of the present term for these men were on May 22, with examinations the following week. There was then twelve days' vacation and the regular summer term began on Monday, June 10.

In view of the existing emergency the faculty has rearranged the schedules of the class of 1919 so that the work will be completed in January instead of June. The changes require that all who wish to graduate with the class shall take a term's work during the coming summer. In the order of exercises for the fall term the senior courses have been rearranged to meet the possible needs of those obliged to enter military service between September, 1918, and January, 1919. Men who are so called will be recommended by the faculty for their degrees, provided they have satisfactorily completed their courses up to the time of their entry into the service.

In addition to these courses the schools now maintained for the army and navy in Aeronautics will be continued through the summer in accordance with the plannings of these arms of the service, substantially as now conducted.

NEWS OF ALUMNI ASSOCIATIONS

ALBANY—TECHNOLOGY CLUB OF EASTERN NEW YORK.—The annual election was held this year in the form of a smoker at the Mohawk Club on May 3, 1918, and the following officers were elected for the year 1918-1919: C. N. Draper, '07, president; E. S. Chase, '08, first vice-president; C. M. Currier, '14, second vice-president; and S. P. Kimball, '11, secretary-treasurer, P. and M. Com. Dept., General Electric Company, Schenectady, N. Y.

The following men have entered the service:

H. E. Dexter, Lieut., Engrs. Corps.—E. H. Sargent, Capt., Engrs. Corps.—Russel Suter, Capt., Engrs. Corps.—Duncan Dana, Avia. Corps.—P. A. DeMars, Avia. Corps.—Stuart Thomson, Lieut., Ord. Dept.—Harold Worthington, Lieut., Field Art. Corps.—F. S. Lincoln, Camp Devens.—W. S. Lasky, Camp Devens.—C. M. Currier, Radio Sect., S. C.—M. R. Thompson, Gas Def. Div.

Through the efforts of Mrs. Draper the Technology women of Schenectady have been mobilized and they devote their services to work of the Red Cross, Tuesday mornings. Plans are being made at present to form an Eastern New York Branch of the Women's Auxiliary of Boston as we have in Schenectady forty-one wives of Technology men.—*Scott P. Kimball, '11, Secretary-Treasurer, P. & M. Dept., General Electric Company, Schenectady, N. Y.*

ATLANTA ALUMNI ASSOCIATION.—The Atlanta Alumni Association continues to hold its weekly luncheons Fridays at the Chamber of Commerce Cafe, with practically no omissions for several years.

The Association has been joined recently by Mr. W. J. Rountree, '09, who is located in Atlanta at the Pratt Engineering Works.

Mr. C. P. Eldred, '12, has been very frequently with us during the past year since his occupancy of the Chair of Electrical Engineering at Georgia School of Technology.

Several Tech men who have been in training at Camp Gordon have made it their way to join us from time to time, and we have a standing invitation for all Tech men when they may be in this vicinity to look us up.—*W. J. Sayward, '01, Secretary, 606 Chamber of Commerce, Atlanta, Ga.*

BIRMINGHAM—SOUTHEASTERN ALUMNI ASSOCIATION.—In the War Department's construction of cantonments and industrial plants in this district Technology men have been very active. In the construction of Camp McClellan, Morris Knowles, in the engineering end of the camp, was very capably represented by Maurice Scharff, who had under him a staff including five or six of the younger alumni. The majority of these men have now obtained commissions in the various branches of the government service both here and in France.

At Camp Sheridan I find among others Captain W. A. Snow, '14, Battery D, 134th Field Artillery. Snow has been temporarily moved to Fort Sill, Oklahoma, attending a special school for Field Artillery Officers; however, he expects to be back in Montgomery shortly.

In the work of construction of two nitrate plants in Sheffield, Ala., by the government, among the officers of the O. R. C. located there, I find Captain T. S. Byrne, '13, and Second Lieutenant J. F. Hendrick, '13. Indirectly connected with this work, engaged in the construction of a thirty thousand cable steam plant and transmission line, Mr. O. G. Thurlow, '04, is chief engineer, and your correspondent is superintendent of the transmission line construction. C. H. Boylston, '08, is assistant superintendent of construction of steam plant.

One of the local alumni, N. C. Walpole, '98, has been commissioned a major in the O. R. C., Washington, D. C. I have no doubt there is a considerable number of other Tech men in this district, but every one is working under such a strain that they have been able to give very little time to local alumni affairs.—*F. C. Weiss, '13, Secretary, Alabama Power Co., Birmingham, Ala.*

CINCINNATI M. I. T. CLUB.—There has been no regular meeting of the club since my last letter. We almost had an outing last week, but for several reasons, among which may be mentioned that a number of our members are very busy working on war materials, and all feel more like giving the expense money to the Red Cross, we decided definitely to postpone it for another year.

Since the last letter, several of our number have joined the National Service; Charles R. Strong, '11, of the firm of Kruckemeyer & Strong, Architects, has been made top sergeant in the Constructional Division of the army, and is now with the Aero Construction Company, Carpenters No. 16, Aviation Tent Camp,

Field No. 2, Hempstead, Long Island, N. Y. He writes home very enthusiastic reports of the work and the life at camp, and is now awaiting sailing orders.

Charles F. Cellarius, '16, has been assigned to the 3d Company, Fourth Officers' Training School, stationed at Camp Sherman, Chillicothe, Ohio.

L. B. Cahill, '17, who joined the American Field Service soon after our entrance into the war, was afterwards transferred to the Ambulance Service, where he saw service on both the French and Italian fronts. In a recent letter he reports he is now flying in the Aviation Service.—*Moritz Sax*, '96, *Secretary*, 1011 *Fourth National Bank Building, Cincinnati, Ohio*.

CONNECTICUT VALLEY TECHNOLOGY ASSOCIATION.—The annual Summer meeting of the Connecticut Valley Association will be held at the Pease House, Saybrook, on Saturday, July 13. Dinner served at 2 o'clock.

The afternoon will be spent with a baseball game and bathing. We will have a late supper before coming home Saturday evening.—*Ernest W. Pelton*, '03, *Secretary*, 77 *Forest Street, New Britain, Conn.*

DAYTON—THE TECHNOLOGY CLUB OF DAYTON.—Early in the year we had an election of officers, at which the following men were chosen: Charles H. Paul, President; J. E. Barlow, Vice-President, and W. H. Kiefaber, Secretary-Treasurer. We continue to hold our weekly luncheons on Tuesdays at twelve o'clock noon at the Dayton Engineers Club. In passing it may be of interest to you to know that we held a smoker on April 30, and had an excellent turn-out. Mr. Marvin Piece, '18, who had stopped off on his way to Camp Lee, gave us some very interesting news from Boston. Others on the program were: D. A. Kohr, '01; B. C. Boulton, '16, Lieutenant Walter O'Brien, and W. G. Wuichet, '89. We are having very good turn-outs at the weekly luncheons, in fact I believe that we have a very strong Tech organization.—*W. H. Kiefaber*, '08, *Secretary-Treasurer*, 601 *East Monument Avenue, Dayton, Ohio*.

MINNEAPOLIS—MINNESOTA TECHNOLOGY ASSOCIATION.—We held our annual meeting on the evening of June 6 at the Elks Club in Minneapolis, and the feature of this gathering was furnished by the fact that we had with us Mr. Edwin H. Hewitt, '99, who

had recently returned from France where he had been the first American in charge of the work of erecting Y. M. C. A. huts. Mr. Hewitt gave us an informal and very interesting description of his pioneer work on the western front. Being a professional man, an architect, as well as a humanitarian, his interests were in the destruction wrought to the architecture of France, as well as to its manhood, and his word pictures were most terribly vivid along both of these lines. The fact that he had spent, after leaving Tech, several years in study in France added poignancy to the relation of his tale. After his informal talk we conducted a questionnaire and kept him busy for about an hour filling in the chinks in our minds.

We were also very fortunate on this occasion in having three of our local Tech men with us who are engaged as the heads of departments at the Aviation Mechanics Training School, situated in the Overland Building midway between Minneapolis and St. Paul. I wish it were possible for me to describe as they did the work of organizing and "carrying on" at this wonderful institution. Almost overnight a school of four thousand men was organized last February, and Clarence J. Brown, '09, was in charge of organizing the teaching staff. His first call was for Tech men, of whom he procured three besides himself: Mark G. Magnuson, '04; Ralph Randall, '06; and Fred Menke, '09. Mr. Brown is now at the head of the Woodworking Department, Magnuson at the head of the Rigging Department, and Randall at the head of the Engines Department.

These three men took up their respective phases of the work and gave us an intimate view of their particular problems. Their discussions with Mr. Hewitt on the finer points of aeroplane construction went a little over our heads, for Hewitt could talk from the standpoint of a man who had seen both the best German and French planes on the fighting front, while they could speak authoritatively of the construction of our own planes.

Reluctantly Mr. Mann finally called the business meeting to order and we proceeded to elect officers for the ensuing year. Mr. Jesse W. Shuman, '97, was unanimously elected president, and Mr. Harold E. Young, '06, secretary and treasurer.—*Harold E. Young, '06, Secretary, 15 South 5th Street, Minneapolis, Minn.*

NEW HAVEN TECHNOLOGY CLUB.—A new Technology organization has been founded in New Haven, largely through the

interest and activity of Roy L. Parsell, '14, A. T. Hopkins, '97, and C. E. A. Winslow, '98.

The organization took place at a dinner on April 11, at which forty-two men were present, including Professor Allen representing the Council. Officers were elected as follows: C. E. A. Winslow, '98, President; A. T. Hopkins, '97, Vice-President; R. L. Parsell, '14, Secretary and Treasurer; H. M. Wilcox, '94, member of the Governing Board. It was decided that Mr. Hopkins should represent the new association at the Council meetings in Boston.—*Roy L. Parsell, '14, Secretary, Winchester Repeating Arms Co., New Haven, Conn.*

NIAGARA FALLS TECHNOLOGY CLUB.—A meeting was held on May 2, at which organization was decided upon. E. T. Pollard, '02, was elected President, J. B. Glaze, '12, Vice-President and N. Duffett, '11, Secretary-Treasurer.

Those present at the meeting were: H. L. Noyes, '90; W. M. Corse, '99; E. T. Pollard, '02; J. H. Critchett, '09; F. H. Dunnington, '09; W. C. Read, '09; R. E. Gegenheimer, '10; N. Duffett, '11; O. Hutchins, '11; J. B. Glaze, '12; W. M. Flanders, '13; E. H. Mangan, '13; P. S. Savage; E. L. Hauman, '16; L. H. Hills, '17.

The activities in connection with the war are many, but we hope in our minutes of relaxation to improve our acquaintance among alumni in this vicinity and do all that we can to further interests of Massachusetts Institute of Technology.

An outing is planned for July, when we hope to meet with the Buffalo Club and enjoy ourselves on Lake Ontario's shore. The doings are in charge of the following committee: A. T. Hinckley, '08, chairman, Paul Hooker, '02, and W. M. Flanders, '13. We would be glad to meet any Technology men in the vicinity.—*N. Duffett, '11, Secretary, care Union Carbide Co., Niagara Falls, N. Y.*

PHILADELPHIA TECHNOLOGY CLUB.—The April meeting of the Technology Club of Philadelphia was held on April 3, 1918. Mr. R. E. Page, '06, of the Philadelphia Mutual Fire Insurance Co., spoke on "Fire Protection." The talk was illustrated by lantern slides.

The annual meeting and election of officers was held on the same evening and the following were elected for the ensuing year: President, H. L. Walker, '05; Vice-President, C. F. Willard, '02; Secretary-Treasurer, N. A. White, '06. Executive Committee:

The officers ex-officio; Col. D. A. Lyle, '84; E. P. Trask, '99; H. A. Terrell, '06; R. E. Page, '06; D. K. Bullens, '09; M. B. Dalton, '15.

The following appointments have been made by President Walker:

Technology Representative on Board of Directors of Engineers Club, H. A. Terrell.

Technology Representative on Meetings Committee of Engineers Club, R. E. Page.

Technology Representative on Public Relations Committee, C. J. Walton.

Associate Editor Engineers Club Journal, N. A. White.

The annual Field Day was held on Saturday afternoon and evening, June 8, at the Country Club, Woodbury, N. J. The proverbial Field Day weather brought out a good attendance of about seventy-five.

The first event of the afternoon was a five inning ball game in which nine of the club members, disguised as suffragettes, challenged all comers. The ladies as usual were invincible, the score being 9 to 7.

Suffragettes

THE LINE-UP

All Comers

Winifred Walton, '14.....	Pitcher.....	J. W. Taylor, '05
Natalie White, '06.....	Catcher.....	G. W. Thompson, '17
Tilly Trask, '99.....	1st B.....	H. A. Terrell, '06
Peggy Page, '06.....	2d B.....	R. L. Dodge, '10
Rosy Rocket, '17.....	3d B.....	W. W. Eaton, '97
Bridget Bullens, '09.....	S. S.....	W. E. Pattison, '97
Dinah Dalton, '15.....	R. F.....	H. M. Brayton, '17
Flossy Frazier, '11.....	C. F.....	P. E. Tillson, '06
Belinda Bell, '17.....	L. F.....	G. C. Lees, '08

Umpire: C. W. Hoy, '04

Other stunts followed the ball game, the suffragettes again winning in the relay race around the bases, while the result of the tug-of-war is still in doubt. Special games and toy balloons were provided for the kiddies.

After the sports supper was served on the lawn and several comic presentations were made by President Walker. The prize for the youngest "Techlet" present was awarded to Master Allen Willard, age nine months, son of C. F. Willard, '02. A good view

of the partial eclipse of the sun was obtained in the early evening.

After supper an hour was devoted to the singing of Tech songs and national airs, followed by dancing, cards and a championship pool tournament.

Field Day ends the activities of the club for the summer, no meetings being scheduled until fall.—*N. A. White, '06, Secretary, Wenonah, N. J.*

ROCHESTER — THE TECHNOLOGY CLUB OF ROCHESTER. — H. P. Hart, '05, who has been acting as inspector of artillery and munitions for the government at the plant of the Symington Machine Company of this city, has been appointed chief government inspector at the plant of the Consolidated Car Company, Albany, N. Y.

Dr. Gerould Lane, '13, originally from Great Barrington, Mass., has given up his position as assistant superintendent of the Rising Paper Company, Housatonic Falls, Mass., to take a similar position with the Eastman Kodak Company at Kodak Park Works.

M. H. Eisenhart, '07, has resigned his position as superintendent of the chemical department with the Eastman Kodak Company to go with the Bausch & Lomb Optical Company of this city, as production manager.

John F. Ancona, '03, who left the Kodak Company about two years ago to go into business for himself as consulting engineer, specializing in the design and construction of factories and mills, fire protection, heating and ventilating, and power engineering, and particularly in reinforced concrete construction, has recently been appointed a member of the executive committee of the Manufacturers' Council and of the War Inventions Council of the Chamber of Commerce.

Bertram C. Hopeman, '00, is at present in Chester, Pa., in the interests of The Hopeman Brothers' Lumber and Manufacturing Company, who are preparing to do ship joinery work.—*W. S. Lucey, '07, Secretary, Eastman Kodak Co., Rochester, N. Y.*

SALT LAKE CITY — INTERMOUNTAIN TECHNOLOGY ASSOCIATION. — We have nine members of the Intermountain Association in the service, as follows:

Capt. J. C. Damon, '05, Council National Defense Building, Washington, D. C.

Capt. L. R. Davis, '08, aviation, Poulsons Camp, Hoquiam, Washington.

Lieut. W. Jennings, '08, Q. M. C. 104 Broad Street, New York City.

Capt. J. H. Leavell, '06, Camp Lewis, American Lake, Washington.

C. S. McDonald, '99, American Red Cross, died in service at Paris, France, May, 1918.

T. B. Parker, '13, 26th Engineers, Camp Dix, N. J.

Lieut. J. S. Selfridge, '13, Ordnance, U. S. Filling Plant E.

Lieut. Wood Selfridge, Ordnance, Camp Upton, Yaphank, N. Y.

Lieut. R. E. Wells, artillery, Fort Sill, Okla.

T. E. Starr, '13, has gone to Antofogasta, Chile. Some of the boys have received announcements of Starr's wedding, recently.—*W. H. Trask, Jr.*, '06, *Secretary, University Club, Salt Lake City, Utah.*

SYRACUSE—*M. I. T. CLUB OF CENTRAL NEW YORK.*—On Thursday evening, April 11, we held our last dinner of the season at the University Club, about twenty-five being present.

Mr. James B. Reber, of the Columbian Rope Company of Auburn, gave a very interesting talk on the manufacturing of all kinds of rope and twine. His talk covered the industry from the gathering of the flax and hemp in India, Mexico and other parts of the world, up through to the finished product. Lantern slides aided Mr. Reber in his description of the industry.

Plans were discussed in regard to holding a field day some Saturday afternoon this summer, and there was great evidence of enthusiasm.—*J. S. Barnes*, '08, *Secretary-Treasurer, Merrell-Soule Company, Syracuse, N. Y.*

WASHINGTON SOCIETY OF THE M. I. T.—The new officers elected at a recent meeting of the Washington Society of the Massachusetts Institute of Technology were: President, Earle B. Phelps, '99; Vice-President, F. W. Swanton, '90; Secretary-Treasurer, E. J. Casselman, '15; Executive Committee Member, Major A. M. Holcombe, '04; Alumni Council Representative, Henry Morss, '93.—*E. J. Casselman*, '15, *Secretary, 3519 Lowell Street, Washington, D. C.*

TECH MEN IN THE PUBLIC EYE

THE announcement that GEN. COLEMAN DU PONT, '84, has accepted the presidency of the Industrial Finance Corporation—the parent institution of the hundred Morris Plan companies in the United States—draws public attention again to one of the most striking personalities in American industry and finance.

The name of du Pont is as closely—and as conspicuously—identified with powder as that of Rockefeller is with oil. Yet General du Pont had retired from active business with a fortune of his own making, before he had anything to do with the manufacture of explosives. Nor was his father a powder-maker. His grandfather, however, was the founder of the powder business with which the name has been connected for over a century, and which has grown to be the greatest plant of its kind in the world.

Coleman du Pont's father, accompanied by a brother, went west to seek his fortune while still a young man, and was living at Louisville, Ky., when his son was born, less than fifty-five years ago. The boy's education was completed at the Massachusetts Institute of Technology, where he studied engineering. From Boston he made his way to Central City, Ky., an insignificant mining village, where he learned the first principles of coal production. Like the future Lord Salisbury in the gold mines of Australia, he was not above wielding a pick; and he learned not only how to dig coal, but how to drive mules and shoe them, how to handle carpenters' tools, and how to stoke an engine and run it; and incidentally he solved the engineering problems that came his way. By the time he was thirty, Coleman du Pont had become superintendent of the mines at Central City, had transformed the little village into a fair-sized town (all of whose seventy-five hundred inhabitants were his friends) and was ready to move to larger fields of enterprise. His choice was Johnstown, Pa., where the men who ran the Johnson Company—one of them being "Tom" L. Johnson, the future "three-cents-fare" mayor of Cleveland—were old-time employees of his father, whom they had begun to work for at fifty cents a day. They made him manager, and he quickly learned the steel business. A few years later he became interested in building and running street railways in

Pennsylvania, New Jersey, New York and Alabama. At thirty-seven he retired from active business and went to Wilmington, Del., the old family home, to live.

Two years later (in 1902) at the request of his kinsmen, he assumed the presidency of the du Pont Powder Company, and by reorganizing it so as to include the many minor concerns it controlled, he made it one of the greatest industrial enterprises in the country, so that when the war broke out it was capable of increasing its output a hundredfold, and to do this without undue strain on its organization, or serious friction with its many thousands of employees. In 1914 General du Pont sold his large holdings of stock in the company, retired from the presidency and became "a man without a job."

It was not long, however, before a job—and a big one—sought and found him. The Equitable Life Assurance Society, thanks to a destructive fire, had on its hands the largest and most valuable plot of unimproved land in lower New York. This afforded an ideal site for an enormous office building, but the cost of erecting it frightened off even the boldest real estate operators. Some one thought of du Pont; and with characteristic vigor the General undertook the task, which involved an investment of many millions, and the largest office building in the world rose quickly to a height of five hundred feet above Broadway, where the old Equitable Building had stood for many years. The actual value of this bit of real estate is far in excess of the \$25,000,000 at which the city assessed it—a sum exceeding by many millions the assessment on any other building in New York—and it pays the city nearly half a million annually in taxes.

Having built the Equitable Building, General du Pont paid \$2,500,000 or so for the fifty-one shares of the insurance company's stock (of the par value of \$51,000), previously held by the late J. Pierpont Morgan, which carried control of its \$600,000,000 of assets; but he promptly signified his approval of the proposed mutualization of the society, since accomplished, which involved the surrender of his stock, without profit, in the interest of the policy-holders. At an expense of \$3,000,000 or so, General du Pont has built a state-long highway in Delaware and presented it and the abutting land to the Commonwealth. His recent acquisition of the Waldorf-Astoria was on a par with his previous real estate undertaking. General du Pont's interest in the Morris

Plan of industrial loans and investments dates from the formation of the Wilmington (Del.) Company, three years ago. He became at that time not only a director of the local company, but of the Industrial Finance Corporation, to whose Executive Committee he was elected the following year.—*The Financier*.

On the principle of giving credit where credit is due, the stockholders of the road and the public, too, owe a vote of thanks to PRESIDENT MATTHEW C. BRUSH, '01, of the Boston Elevated Railway. Without in any way disparaging the services of others, it was Mr. Brush who almost alone and single-handed convinced the legislature and the public that the road was justly entitled to a new deal. He was president, counsel, publicity director and everything else rolled into one. With the acceptance of the act by the stockholders of the Elevated, Mr. Brush's purpose in taking the presidency of the road will have been accomplished. It is an open secret among his friends that he has no desire to continue in charge of the road under public control even should the post be offered to him by the trustees.

The attention of street railway interests all over the country has been riveted on the efforts to solve the Boston traction puzzle and on the work of the energetic young head of the Elevated property. The methods so successfully adopted here are expected to be used as a guide and model for straightening out impossible street railway situations in other populous centers.

All this has naturally switched the spotlight on to the man who did the job. "Matt" Brush was born forty years ago in Minnesota. While a graduate of the Armour Institute and Massachusetts Institute of Technology, his training was acquired largely in the school of experience. He travelled no royal road to success but reached the top after painfully climbing each rung of the ladder. It is a far cry from newsboy in Chicago to president, director and chairman of the executive committee of a \$130,000,000 street railway property. Mr. Brush has been both. In his climb from newsboy to president he has been successively grocery clerk, hotel clerk, steamship clerk, steamship purser, machinist's apprentice, machinist, acting roundhouse foreman of the Union Pacific at Omaha; general foreman of the Rock Island, at Goodland, Kan., assistant to president, Boston Suburban Companies; vice-president and general manager, Newton Street Railway and Middlesex & Boston; general manager, Buffalo & Lake Erie Traction Company;

assistant to vice-president, Boston Elevated; second vice-president and vice-president. He was appointed president of the Boston Elevated on September 15, 1916, at the age of thirty-nine.

Brush's tact and courtesy really got him his start. While purser on a lake steamer a thin, keen-eyed, elderly man complained to him about the service. Brush handled his complaints as smoothly and fairly as possible. He also answered courteously a lot of personal questions about himself. Later he learned that the elderly man was John D. Rockefeller, and that the oil magnate had spoken to James J. Hill about Brush. This gave Brush his start in the railroad business as a shop apprentice on the Great Northern. He was later a protégé of P. D. Armour, the pioneer packer and patron of the Armour Institute.

Brush's energy and enthusiasm are his two distinguishing characteristics. He talks directly. He acts directly. In less than two years that he has presided over the destinies of the Elevated road he has accomplished wonders in placating public opinion and gaining the coöperation of the road's employees. If, as is likely, Mr. Brush steps up into a new and larger sphere of usefulness he will take with him the best wishes of the entire community.

—*Boston News Bureau.*

WILLIAM CHAPMAN POTTER, '97, who continues in charge of actual aircraft production, was born in Chicago, October 16, 1874. He comes from Massachusetts colonial stock, the family having settled in Ipswich in 1635. One of his antecedents was John Potter, a lieutenant in the Revolutionary Army. His father, Edwin Augustus Potter, a former president of the Continental and Commercial Bank of Chicago, now resides at Lake Geneva, Wisconsin. Mr. Potter is a graduate of the Greenwood Avenue Public School of Chicago, the Chicago Manual Training School and the Massachusetts Institute of Technology in 1897. He holds the degree of M. E. and A. B.

In 1898, he entered the employment of the Liberty Bell Gold Mining Company, of Telluride, Col., going the next year to Libby Creek, Mont., as a mill foreman. Then he entered the employment of the Atchison, Topeka & Santa Fe Railway as a mining engineer in the Industrial Department. In 1902, he became a member of the firm of Dickman, McKensie & Potter of Chicago, but in 1903, he took the management of the Guggenheim Exploration Company, in the city of Mexico. From 1905 to 1911,

he was general manager of the Southern Department of the American Smelting & Refining Company, with headquarters at Aguascalientes, Mex. Next he was made president of the Intercontinental Rubber Company of New York. He resigned to accept the first vice-presidency of the Guaranty Trust Company of this city in 1912, relinquishing this position in 1916, to join the firm of Guggenheim Brothers, 120 Broadway. He became president of the Braden Company and vice-president of the Chile Exploration Company.

On January 2, 1918, he entered the service of the government in the Equipment Division of the Signal Corps, and, naturally, is familiar with the present perplexing aircraft production situation.

Mr. Potter was married in Chicago, in 1902, his bride being Miss Caroline Morton, daughter of the late Paul Morton, former secretary of the navy, and later president of the Equitable Life Assurance Society. They have two daughters, Jean and Charlotte. Charles H. Sabin, president of the Guaranty Trust Company of this city, is his brother-in-law. Among his clubs are the Links, Metropolitan, National Golf Links, Shinnecock Hills Golf, Racquet and Tennis, Piping Rock, Rocky Mountain, Bankers' Club of America, Recess and the Club of Royal Game. By his associates Mr. Potter is regarded as eminently qualified to carry out successfully any undertaking to which he may be assigned by the government.—*Aviation*.

CHARLES LADD NORTON, '93, professor of heat measurements on the faculty of the Massachusetts Institute of Technology, Cambridge, Mass., and one of the leading consulting experts of the United States on all phases of heat and of fire protection, is to serve in an important way in the inventions section of the General Staff of the War Department. To this group of combined civilian and military experts, inventors who wish to have their devices considered and judged should, and will hereafter, send their descriptions and sketches. Ten of the technical societies of the country, the Bureau of Standards and all the war agencies created for testing projects of a military sort, and having to do with mechanism or applied natural science, will coöperate with this new section of the General Staff. Professor Norton graduated from the "Tech" in 1893, where he specialized in the field in which he has since become a master. Besides his work as

an investigator, he is now interested in a large number of business corporations which make fabrics and other forms of utilized asbestos.

E. LOGAN HILL, '05, of New York City, has been appointed secretary of the United States Shipping Board Commission on Port and Harbor Facilities.

Mr. Hill was formerly assistant to general manager of the Erie Railroad and affiliated lines and was granted leave of absence from June 10, to serve on the above commission, which was appointed for the purpose of improving port and terminal facilities to the end that ships may be unloaded, repaired, bunkered and reloaded with the minimum loss of movement and time. The offices of the commission are in Washington, D. C.

COMFORT AVERY ADAMS, the newly elected president of the American Institute of Electrical Engineers, was born at Cleveland, Ohio, in 1868. He was educated at the Case School of Applied Science, where he received the B. S. degree in 1890, and the degree of E. E. in 1895.

Professor Adams assisted in physics prior to his graduation; he was engaged in Engineering Design in 1890 to 1891. In the latter year he became an instructor in Engineering at Harvard University, being appointed assistant professor in 1896. Ten years later he became full professor, and since 1914, he has been Abbott and James Lawrence professor of Engineering at Harvard and the Massachusetts Institute of Technology.

Professor Adams has been actively engaged in consulting engineering for the past sixteen years, among his clients being Stone & Webster, Boston; American Tool & Machine Company, Boston; Warner Sugar Refining Company, New York; Simplex Wire & Cable Company, Cambridge, Mass.; the Okonite Company, New York, and the Boston Edison Company. He was a member of the international jury of awards (department of electricity) at the Louisiana Purchase Exposition, St. Louis, Mo., in 1904.

Besides being a member of the Engineers' Club of New York and other organizations of non-technical character, Professor Adams is a fellow of the American Academy of Arts and Sciences and of the American Institute of Electrical Engineers, having been chairman of the Boston branch in 1905 and 1906, and is secretary of the standards committee of the American Association for the Advancement of Science. Professor Adams also is a

member of the Institution of Electrical Engineers, London; of the Illuminating Engineering Society, Society for the Promotion of Engineering Education, American Physical Society and National Electric Light Association. He has contributed many scientific papers to the technical press and is the author of "Dynamo Design Schedules."

FELIX ARNOLD BURTON, the elder son of Dean Alfred E. Burton of the Institute, was ordered late in April to The Hague, where he will report for duty as a draftsman for the United States military attaché, as a civilian attached to the Quartermaster's Corps.

Burton was graduated from Bowdoin College in 1907 and after four years post-graduate work at M. I. T. received his S.M. in 1911 and went to Portland, Ore. Returning to New England he became associated with Allen & Collens of Boston and with them made the plans for the gymnasium, Hyde Athletic Building, Dudley Coe Memorial Infirmary and William De Witt Hyde Hall at Bowdoin College and for the new First National Bank Building, now in progress of construction.

PROF. WILLIAM H. WALKER, now colonel in the National Army, writes of his work in war chemistry: "I have recently been made commanding officer of Gunpowder Reservation, which is the government arsenal for the manufacture of poison gas and the filling of same into shell, together with incendiary bombs, smoke shell, etc. We have between four and five thousand men at work and will soon get into production."

JAMES IRA BANASH, '06, for eleven years actively engaged as engineer at Underwriters' Laboratories, in the examination and testing of hazardous appliances, has been appointed engineer-in-charge of the Casualty Department. He succeeds S. V. James, who is now mechanical engineer on special research work at the laboratories.

Mr. Banash is a graduate of the Massachusetts Institute of Technology, a member of the American Society of Mechanical Engineers, the National Fire Protection Association, the National Welding Council, and the International Association of Fire Engineers. He has done much work with committees of these associations in preparing specifications for the manufacture, use and maintenance of appliances involving fire and accident hazards with the end in view of reducing these hazards.

The variety of appliances submitted to the Casualty Depart-

ment is a matter worthy of note. A few among them are: Goggles for many purposes, including those for welders; ladders, guarding devices for power-driven machines, elevator safeguarding appliances, shaft couplings, locking devices and anti-slip treads, scaffolding machines, window-washers, safety belts, etc. The experience which Mr. Banash brings to the department will be of special advantage in meeting the problems of devising test apparatus and standardizing test methods frequently difficult and complex.

FROM THE DEPARTMENT OF MILITARY SCIENCE

ALL graduates in any branch of the military service are advised to keep this office informed as to rank, organization, address, etc., and keep this information up to date. The Department of Military Science has had several opportunities for placing such men in commissions lately, but has been unable to help some of them from lack of the above information.

Members of the alumni not in the service, who desire opportunities of attending training camps for the various branches of the service, should file application with the Department of Military Science, giving full history, address, etc.; then when an opportunity comes they will be notified. Each time such opportunities have been available, men who would have been sent have submitted applications too late for consideration.

EDWIN T. COLE,
Major, U. S. Army, Ret.

MISCELLANEOUS CLIPPINGS

What shall we do with the McKay foundation?

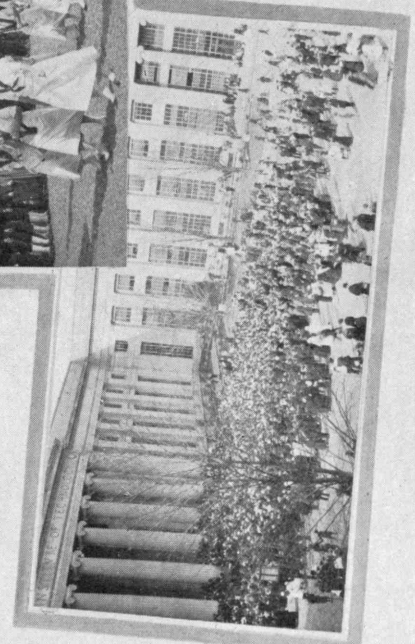
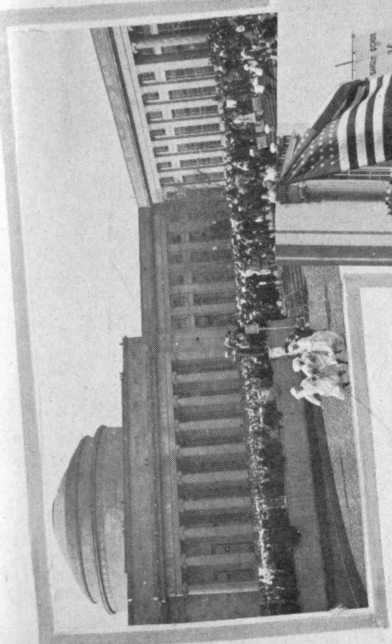
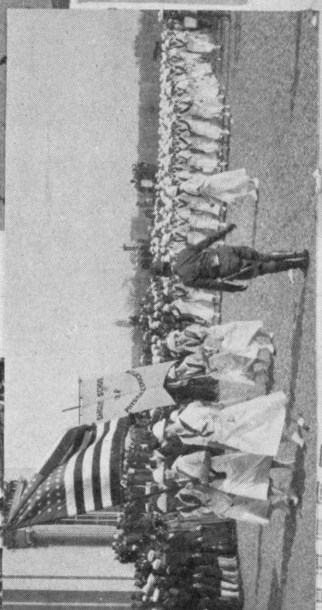
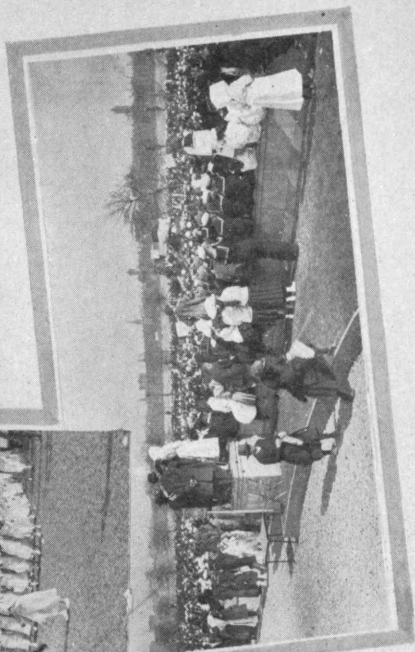
Since the decision of the Supreme Court in the matter of the Harvard-Technology agreement the future of the great trust established some fifteen years ago by the McKay will has been the subject of much discussion from every point of view. There have been numerous articles published by distinguished graduates, both of Harvard and Technology, regarding the merits of the decision from the educational standpoint and the possible solution of the difficulties which have arisen.

Conspicuous among these studies have been the articles by the Hon. Nathan Matthews and Prof. George F. Swain in the *Harvard Graduate Magazine* and the *Harvard Alumni Bulletin* last month. The first bears on the matter chiefly from the standpoint of the accomplished lawyer, the latter from the point of view of the experienced engineer and educator. But each is of a different school of thought in respect to the problems involved, the one looking forward to a frankly competitive Harvard scientific school, the other to a great technical organization under Harvard management, administered in such wise as not to be a direct competitor of the Institute of Technology. These two are practically representative of all discussions of the subject.

This trouble really runs back to the beginning of the foundation. When the first "arrangement" of 1905 had been tentatively made, the storm broke. The then president of the Institute, with much erudition and experience, had not learned the simple, fundamental lesson that a great eastern institution of learning consists not of buildings or equipment, of faculty, or president, or corporation, but of the great loyal body of its alumni, standing like a rock in defence of their alma mater. Rightly or wrongly, the Technology alumni looked on the "arrangement" as, in effect, tacking up on the door of Rogers a placard, "Sold out to Harvard," and their president retired, without much loss of time, to a position of dignity and honor. And now the "agreement," eight years later, though tactfully and wisely steered by two broad-minded and distinguished scholars, has been shipwrecked in effect, on that self-same rock on the other side of the channel.

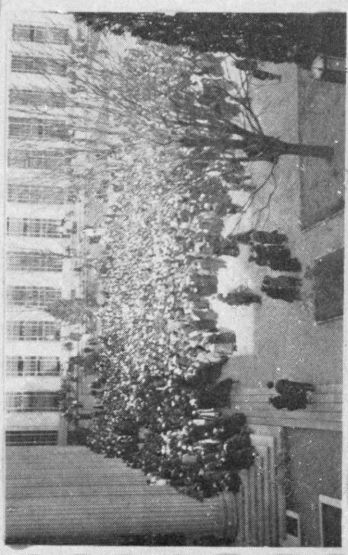
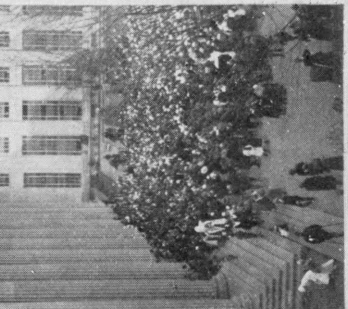
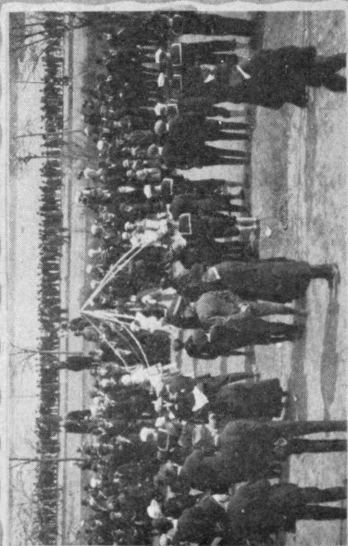
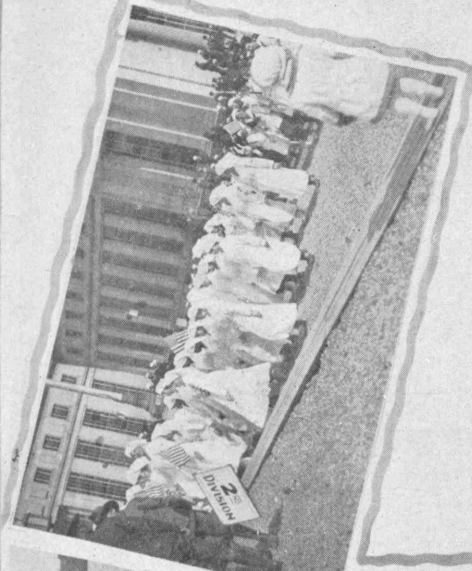
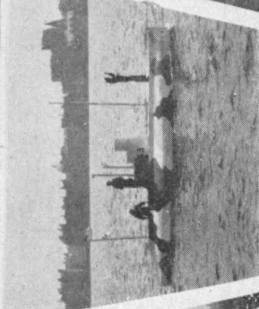
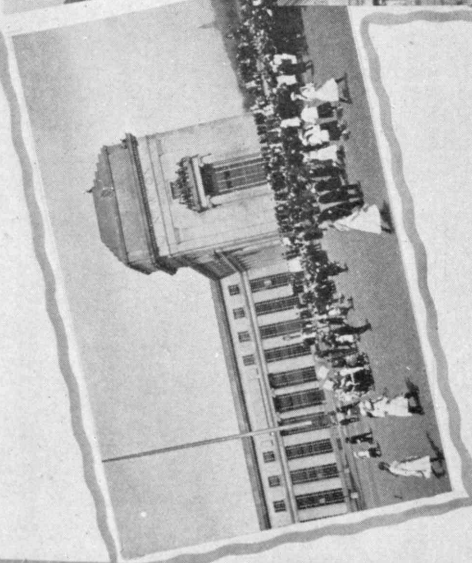
One cannot read Mr. Matthews' able discussion of the legal phases of the matter without feeling on the one hand that the decision of the court was well founded, and on the other that it would not have been reached at all had the moving power of the action against the agreement been merely an altruistic effort on behalf of the sanctity of trusts of somewhat doubtful bearing.

Both Mr. Matthews and Professor Swain outline interpretations of the probable intent of the testator; Mr. Matthews taking the broad view



CAMBRIDGE LIBERTY LOAN DAY AT M. I. T., APRIL 27, 1918

THE INSTITUTE PROVES A GREAT SUCCESS AS A CIVIC CENTER IN CAMBRIDGE'S LIBERTY LOAN FÊTE APRIL, 1918



that the endowment may properly be used for "any of the scientific subjects which may, or may hereafter, have applications useful to man." Professor Swain from the same data of the will believes that Mr. McKay clearly intended to provide for an engineering school in the common acceptance of the term. These opinions differ like those of the broad and narrow constructionists of the federal constitution.

Personally, from examination of the documents in the case, judged merely as plain English, the writer must honestly confess that Mr. McKay's real intentions are far from evident, save that he meant magnificently to endow an institution to bring science to the service of mankind. It is not at all unlikely that he may have wished its educational offices to begin with the equivalent of a technical high school, and to continue as far thereafter as might be desirable. It would certainly be hard to oppose such use on legal grounds in face of certain terms of the will. It is not improbable that Mr. McKay himself did not know definitely just what he wanted to accomplish, and intentionally in broad terms left the burden of the decision on his trustees.

The recent quarrel with the beneficiaries has not been with respect to the purpose of their action, but to the way in which it was accomplished. Harvard looked with disfavor on turning over three-fifths of the total income of the fund to the practically complete control of Technology, just as Technology, eight years earlier, objected to delivering its entire body politic to the control of Harvard.

In the large, the two institutions are not in the least inimical. Those elder times, in which the concurrence of any part of the two student bodies was a signal for a row, and when amalgamation of the institutions seemed as unlikely as a concordat between the Ancient and Honorable Artillery Company and the W. C. T. U., have fortunately passed. Whatever plans may be adopted, it is evident enough that the building up of duplicate equipments and duplicate work side by side would be too foolish a step for serious contemplation. The equipment of a great school of applied science and the furnishing of the necessary funds for its operation is too big a task financially to make duplication thinkable. For that matter, twenty-five years from now the Institute may well have a great foundation of its own, for the buildings just across the Charles are a monument to the captains of industry who are standing behind the new Technology now, as they are likely to do in the future.

There seems to be no good reason why, without straining the terms of the trust, the two institutions cannot unite in building up a scientific engineering school far greater than either separately could organize, and such would seem to be the logical outcome of the situation.

At the present moment both Harvard and Technology are essentially and characteristically undergraduate institutions, although each of them does a certain amount of distinguished post-graduate work, without adequate facilities for pursuing it under the pressure of undergraduate needs. Any one who, like the writer, has followed with keen interest the progress of research work in both institutions for a score of years knows that the way of the advanced investigator is hard in both of them, for lack of

time, lack of money, and above all, the lack of the inspiration which comes from a spirit in which the promotion of research is dominant.

If, then, the McKay foundation is to be of the fullest value to mankind, it seems clear that it should be devoted, in so far as is possible, to meeting the greatest need in our national scheme of education in applied science, the existence of an institution in which the biggest problems involving the application of science to human use can be adequately handled by men who have already had their preliminary training, and who can turn to the larger work with the resourcefulness that comes from experience. The undergraduate who comes from the highly technical courses of the Institute, or from the foundations of pure science well laid in Harvard, is just at the point where with proper facilities and under proper guidance he can begin the serious work which the world needs.

No man is wise enough to say today what is pure science and what applied. All science is pure science until it touches directly a perhaps wholly unexpected practical need. A research aimed at purely theoretical end may find its ultimate goal in an everyday practical application to human service, and conversely investigations deliberately intended for practical use may, and do, furnish theoretical by-products of much more importance than all the rest of the work. The history of modern science is full of such examples.

If, therefore, the McKay Fund were directed wholly to the carrying out of instruction and investigation in the larger field of science it would be well spent. There are not a few branches of Technology, of very direct usefulness, in which there is substantially no instruction or opportunity for research to be obtained in the country, chiefly because the funds at the disposal of institutions have, in meeting other current educational requirements, to be spread out altogether too thinly.

This ultimate object needs vitally the coöperation of the spirit of Harvard with that of the Institute, and ought to enforce a thorough measure of coöperation between them, each so directing its efforts and income as to give the greatest measure of useful opportunity to the students of both institutions. There is no adequate reason why instruction in both cannot be exchanged and made fully complementary, to fill out such a scheme of instruction as the two faculties may unite in formulating.

At this point one has to deal again with the individualities of Harvard and Technology. Their ideals of education as a whole have been apparently along diverging lines, but any one who has followed closely the trend of modern education believes that these are likely to meet long before they invade hyper-Euclidean space. If one compares the Harvard curriculum today with that of fifty years ago he receives a shock, no greater perhaps than the student of fifty years hence will receive when he looks over the catalogue of 1918. The Technology curriculum will probably show changes as great.

Mr. Matthews and some of the others who have discussed the McKay situation from the Harvard College standpoint seem to be looking forward to a bigger and better Lawrence Scientific School, stretching out further, perhaps a bit more technical than formerly. Professor Swain, and those

who follow him, imagine a Technology organized within Harvard, with broadened scope and greater use of the Technology facilities, extending perhaps to identity in the specialized courses of the last two years.

Both institutions would be in a very evident line of improvement. The applications of science require technical aside from purely scientific instruction, and the study of technological details should have a far broader basis than time generally permits of giving. Yet both conceptions are distinctly undergraduate. Neither of them rises fully to the spirit of the university, and the lack of this is the characteristic failing of American instruction in applied sciences. No amount of undergraduate drill can make either a great scientist or a great engineer. It can only lay the foundations. From the writer's viewpoint, the broader these are the better, whether obtained by the wide expansion of a technological course in one direction or of a purely theoretical one in the other. It is a good thing for the engineer even to realize that twenty centuries since there lived a people that knew not cantilever bridges or steam turbines or telephones, and would cheerfully have given the hemlock to Marconi, yet possessed a culture that has never been surpassed, and a vision of the spirit that has been the torch of the ages. If the McKay foundation, with all its possibilities of immense usefulness, is spent chiefly in developing work of collegiate grade, with perhaps a year's addendum, it will fall far short of its opportunities.

To the average Technology man the four undergraduate years are the real education, and he does not instinctively grasp the fullness of what work beyond might mean. To the average Harvard man the real thing is the College, with all the sentiment and tradition that clings about the yard, and Harvard University is a *de jure* rather than a *de facto* institution.

The important thing for the cause of education is that the great funds of the McKay bequest should be used to a bigger purpose than has heretofore been possible, rather than in setting up intensive competition, however friendly, in doing merely somewhat better the lesser tasks that are now well done. Certainly the presidents of Harvard and Technology are scholars sufficiently ripe in judgment and broad in view to work out a scheme of coöperation which shall bring the conjoint skill of both their institutions to bear on the immediate task. The difficulties strike one as being ephemeral, and based on an educational past that is rapidly being outgrown.

Perhaps when the thousands who have gone out from Harvard and Technology to the fighting front in the defense of civilization return, they will have gained a view of the fundamental realities which will enable them to look so far beyond their undergraduate days that united action will be made easier.

It may even chance that the way to the greatest things can be found only by turning back the trust to the McKay trustees, again to be established as the McKay Foundation of Harvard University, administered by a board constituted not only of Harvard and Technology graduates, but from all those whose wisdom could help on the cause.—*The Boston Herald.*

The announcement that Technology is forced to begin at once construction work to the extent of one hundred thousand dollars or more is a vivid reminder of the way in which that splendid institution has given over its plant, equipment and resources to the service of the government in this crisis. While most institutions of higher education, naturally enough, find their numbers depleted by the war, their newest buildings little needed and their plans for the future clouded with doubt, Technology has risen to its opportunity in a manner that points the way for scientific and technical schools the country over.

In its special departments for those preparing for service with the colors it has enrolled some two thousand young men, and it has about twenty-five hundred in uniform for daily military exercises. For the use of the many hundreds who are entering on the work that will prepare them for naval aviation, work is beginning on a new seaplane hangar that will cost about forty-five thousand dollars, and for the larger drill field that is necessary, there is the enlargement of the grounds from Vassar Street to Amherst—a happily suggestive combination of names, by the way. With this work there is also the building of a barracks for some of the student aviators and an addition to the imposing Walker Memorial. How happy General Walker would be at the patriotic uses to which they have been putting the imposing structure dedicated to his cherished memory.

Coming on the heels of its removal across the Charles, all these readjustments and these enlargements beyond its most ambitious plans have put a strain on the Tech authorities that might well have daunted the administrators of any university. Until a year ago, Tech had not housed its own students. Now it is not only caring for them in permanent dormitories, but it suddenly finds itself the host of thousands of young men in the government schools that are part of itself and yet distinct. It is writing the brightest chapter in its inspiring history. Incidentally, more than two thousand Tech men are now in active service, an amazingly large proportion of them being overseas.—*Boston Herald and Journal*.

BOOK REVIEWS

CAMION LETTERS, FROM AMERICAN COLLEGE MEN: Henry Holt and Company. New York; 1918. (Including two letters by M. I. T. men.)

There have been plenty of books about the ambulance drivers, their work, weariness and dangers. But this is the first collection, or (almost) mention, of the boys who drive the *camions*, the big auto trucks on which an army at the front depends for provision and munition. This little book has collected some twenty-five letters of American college men who drive camions, largely from Cornell. But for us the collection has interest because of the letters of two Technology men, Irving Gilmore Hall, '18, and Robert Walcott Durland, '19.

The letters are nothing out of the ordinary; there is no fine writing. They are simple tales of unromantic, hard work, well done. A good deal of it has to do with things to eat in retrospect and prospect. But they sound real; they come from a three-dimensional world. And people who pick up the volume because they are interested in two letters from Tech men will go on reading it, because the others are just as good.

ETHICS OF CONTRACTING AND STABILIZING OF PROFITS, by Frederic Wait Lord, '93. The Country Life Press, Garden City, Long Island.

Here is a book about the ethics of business by the president of a well-known electrical corporation, in which he takes up carefully and without prejudice the problem of the modern contractor, standing between the owner, the architect, the engineer and the union. It deals primarily in its illustrations with the electrical business, naturally enough, but its precepts and observations might apply just as well to other forms of contracting, of business carried on through agents and intermediaries. It is no Geraldstanley outburst about inspired millionaires and the beauties of big business; neither is it a handbook on the legal ways to skin your client, competitor or workman. It is a book in business ethics, as I said before, the fruit of a lot of business experience, not pretending that business is all that it should be, but taking the ground that it can still be a blamed sight better than it is—with profit to everybody concerned.

When I received the book I turned at once to the chapter on the unions, resolved to judge it by that. That is one good criterion nowadays, what a large employer thinks of the unions, whether he is a moss-back still dying in the last ditch, or whether he sees, as Mr. Schwab and George A. Whipple and Woodrow Wilson see, that the future belongs to labor and the sooner the employer gets on the band wagon the happier he is going to be. Mr. Lord's book passed the test. He doesn't hand any bouquets to labor, but he recognizes that it is here to stay, and his words on the difficulties in dealing with it are sane and clear and cool and enlightened.

Mr. Lord seems to base his solution of ethical difficulties in business on something he calls the open price plan. Into that I haven't time to go, . . . but from the chapter on the union alone, I should judge it worth considering.

NAVIGATION, by George L. Hosmer, '97; John Wiley & Sons.

Those who are intending to take examinations with a view to obtaining naval officers' licenses will find of great interest and value George L. Hosmer's book, "Navigation," published by John Wiley & Sons. The author is associate professor of Topographical Engineering at the Massachusetts Institute of Technology and has written for readers who have some slight knowledge of mathematics. The book contains no theorems or algebraic formulas, but is made up of the simple working rules required for the daily routine of the navigator. It describes clearly the instruments used in navigation and has chapters on piloting, measuring by time, latitude, longitude, navigating the ship, and other subjects essential to a knowledge of the sailing of ships.

TWO TECH MEN IN THE AFRICAN BUSH, published in the October, 1917, issue of the Quarterly Journal of the Montana Society of Engineers.

It is only a little pamphlet, but it tells a most interesting story, well illustrated, of the trip taken by two Technology men, Archer E. Wheeler, '95, former president of the Montana Engineering Society, and Frederick W. Snow, '00, long-time mining engineer in Cape Town and Rhodesia. Interesting, often vividly or amusingly written, and copiously illustrated, it is about the right length to make a good little travel book. The observations of the two trained engineers are often unusual and illuminating, for they see many things which the unscientific sightseer usually misses.

Some of the vital results of intensive experiments at the Massachusetts Institute of Technology are being issued in sections by the Smithsonian Institution, Washington. They relate to the dynamical stability of airplanes and to wind tunnel experiments in aerodynamics.

It was to ascertain why so many men have been killed by American machines and so few by foreign machines, owing to pockets in the air, that the experiments have been made in Boston. They were conducted under direction of Jerome C. Hunsaker, Doctor of Engineering, Assistant United States Naval Constructor, assisted by other experts.

The pith of their report is that American-made machines are too stiff, as against a certain flexibility of foreign machines. They officially report that an American machine has only seven seconds to right itself in, when plunging downward, while a foreign machine, being more flexible, has sixty-eight seconds. Flexibility allows an aviator a little longer time to use his controls and right his airplane. The anomaly of all this is that until these experiments were made at Boston no one thought of considering the center of gravity as the sole cause of success or failure of airplanes.

— *Denver Post*.

NEWS FROM THE CLASSES

1868

ROBERT H. RICHARDS, *Secretary*,
32 Eliot Street, Jamaica Plain, Mass.

Eben S. Stevens was married recently, and through the secretary he has received the congratulations of all the class of '68. Mr. and Mrs. Stevens will live at his old home at Quinebaug, Conn.

Joe Revere was the guest at a lunch given by Eben Stevens during the Christmas holidays, which was attended by Revere, Stevens, Stone, Forbes and Richards.

Old times were thrashed out again with as much zest as if the occurrences had taken place yesterday. Bob told Joe something of what an important part he (Joe) had taken in the early shaping of the work of the metallurgical laboratory of Tech.

Richards has been on a committee for raising money for the painting of a portrait of the late President Runkle. The money has all been raised and amounts to \$1932.15. And now it only remains to select the photograph and the artist and to have the portrait painted.

Richards has spent a good deal of time lately in March, April, and May, in Virginia, working upon a new process for concentrating the Oriskany iron ores of Virginia. The process belongs to the class of sink and float processes. A heavy liquid is used on which the waste quartz will float and in which the valuable iron ore will sink. The waste is skimmed off from the top and the values are drawn from the bottom of the separator. It only remains to recover the adhering liquid and return it to the store tank to be used over.

Richards and his wife are summering at their camp in the White Mountains, where they are doing little farming. They are having the usual uphill work that beginners have. The trees of the little orchard planted last fall were nearly all girdled and killed by the mice last winter. The grafts newly made this spring on apple trees have all died; the severity of the winter seems to have shriveled the twigs that were used for scions. Much of the corn was dug up by chipmunks just as it was well sprouted. The number 22 rifle has helped check this disaster. The cold and wet spring has made the garden very backward.

Richards and his wife are trying to catch up on their knitting of socks for the soldiers; they have been able to do little at it lately, but hope to strike the pace again now. The total by themselves and their friends on their machines since May, 1917, is 238 pairs.

The class of '68 has come up well in the M. I. T. War Service drive.

1869

The Boston *Herald-Journal* of May 24, 1918, printed the following:

The funeral of Ernest W. Bowditch, pioneer landscape architect, who died Wednesday at his home, 336 Adams Street, Milton, will be held at the residence tomorrow. He was 69 years old and was the son of William I. Bowditch, a conveyancer. He was a direct descendant of Nathaniel Bowditch, author of "Bowditch's Navigator," a recognized authority.

He was graduated with the class of '69 at Technology. For a time after his graduation Mr. Bowditch engaged in railroading in the West. Later when he returned to Boston he established offices for himself as an engineer.

The estates of Cornelius Vanderbilt, Ogden Goelet, J. J. Van Allen, E. J. Berwind and the old Lorillard estate at Newport stand as monuments to his genius. He played a conspicuous part in the development of Newport as a summer resort.

Mr. Bowditch is survived by his widow, Margaret Lyon Swann, daughter of Thomas L. Swann, a commander in the United States Navy, and four children, William I., who is in the aviation corps and believed to be on his way to France; Richard L., who is studying at the Hotchkiss School in Connecticut; and two daughters, Miss Elizabeth Swann Bowditch and Miss Sarah Higginson Bowditch.

1870

CHARLES R. CROSS, *Secretary*, M. I. T., Cambridge, Mass.

Our classmate, Andrew Montgomery Ritchie, was born in New Bedford, February 6, 1849, and died of cerebral hemorrhage at his home in Brookline, December 25, 1916.

He studied at the Institute from 1865 to 1868, devoting his attention chiefly to engineering subjects. At the end of this time he left, entering into business with his father, Edward S. Ritchie, and brothers, who were extensive manufacturers of scientific apparatus.

He married Miss Martha Williams, who survives him, together with two sons, and a married daughter. Of the former, one, Andrew Eliot Ritchie, graduated from the Institute in the course in Mechanical Engineering in 1902.

Mr. Edward S. Ritchie, the head of the firm just mentioned, had at this time acquired an enviable reputation throughout the country as an exceptionally able designer and constructor of "philosophical apparatus," as it was then usually called. The workmanship of everything which came from his manufactory was of the highest grade. Of greater consequence was his ability as an inventor. The class of 1870 was familiar with the great frictional electrical machine, the largest ever made, which Mr. Ritchie constructed for the University of Mississippi, since a picture of it formed the frontispiece to Silliman's "Principles of Physics" which the class used. Mr. Ritchie, Sr., also devised a very ingenious valve for his standard automatic air pump, which rendered this greatly superior to the other mechanical pumps of

the day. The Natterer high compression pump for the liquefaction of nitrous oxide was also noteworthy for its mechanical perfection. Most important of all, from a scientific point of view, was his improved method of sectional winding of the secondary of the Ruhmkorff induction coil, whereby to prevent accidental breaking down of the secondary, which allowed of an increase of the spark-length from an inch or thereabouts up to many times that amount. President Rogers once told the writer of the sensation which such an early Ritchie coil made when exhibited at one of the great expositions in Paris. As the invention was not patented, it was immediately adopted by all makers so that Mr. E. S. Ritchie has not always received the credit which was his due. All the details of workmanship were likewise most carefully attended to, and a Ritchie coil was a synonym for excellence. Years after this time when with the discovery of the X-rays there arose an unprecedented call for powerful induction coils, the firm E. S. Ritchie & Sons, of which our classmate had become a member long before, and of which he was then, I think, the sole survivor, was among the first in the field to present a coil of satisfactory design for this new purpose.

Another highly important invention of Mr. Ritchie, Sr., was his "liquid compass," in which the magnetic system and card are carried by a metal float, a form of instrument which speedily became a standard, and which has not been displaced, notwithstanding the lapse of years and the construction of other devices.

Such was the character of the firm with which our classmate began his professional labors, and throughout his whole life his work was such as to sustain the reputation which it had made earlier.

As a man, Andrew Ritchie possessed the same qualities which we remember in him as a boy, quiet, unassuming, friendly in disposition, of the highest integrity, diligent in his business, reliable in his work. He will be remembered by all with great respect and affection.

1871

EDWARD W. ROLLINS, *Secretary*, Dover, N. H.

Robert H. Richards, in response to a plea for funds for the Technology war work, has received the following interesting letter from Edward Phelps Allis, Jr., doing research work in Vertebrate Morphology, Palais de Carnolès, Menton, France:

April 11, 1918.

Dear Mr. Richards:

Your two long letters were received a week or so ago, and I have been so much occupied with things over here that I have neglected answering them.

Of course, I remember you, for although you did not take many of the studies that I did, your draughting table was some time not far from mine.

Rollins has written me once or twice these last few years, but otherwise I have not seen or heard from any of my old classmates since the year I left the Institute excepting once, when Smith and a friend called on me in Milwaukee, and once when I met by chance, Fay, at a tennis match somewhere near Boston.

I suppose the reason is that I was not a graduate of the Institute and so do not belong to the alumni. I did not care enough for a degree to write a thesis, so I am a sort of outsider. I am, however, interested in this war work over here and inclose my check for \$100, which I think must be largely my share of the \$1200 you want to raise.

Possibly I may meet some of the boys over here, for many officers and others come near here for short rests. There has even been some talk of taking a large hotel here for a rest house.

We are, of course, all more or less interested in work for wounded and refugees, and there are, at this moment, some twenty or thirty little children from the invaded regions out in my garden camping about under the care and direction of my son. They come regularly once a week and have since the fall of 1914.

My daughter is in a hospital here as nurse, and her poilus come frequently to pass the afternoon in the garden. She has about thirty war-godsons, and some two hundred and fifty correspondents at the front, or discharged from service,—all men that she has cared for in the hospitals.

1873

SAMUEL E. TINKHAM, *Secretary*, The Warren, Roxbury, Mass.

The Boston papers printed the notice of the death of John F. Montgomery of Taunton and Redlands, Cal.

Albert W. Johnston, who has been connected with the New York Central & St. Louis Railroad (Nickel Plate) for more than thirty years, retired from active service last January and upwards of two hundred railroad men, representing all departments and every division of the road between Buffalo and Chicago, gathered at Bellevue, Ohio, on May 29 at a complimentary dinner in his honor. The *Bellevue Gazette* of that date gives a most interesting account of the gathering from which the following extract is made:

Beginning as a young man in 1876 with the P. C. & St. L. (Pan Handle) in Pittsburgh, at which time he was employed under Mr. S. M. Felton, now in charge of railroad activities of France and other allies in conjunction with the war activities of the United States government, Mr. Johnston first served as a coal clerk. After a considerable service in different capacities with the road where his career was begun, he entered the employ of the J. M. & I., now a part of the Pennsylvania system, in the engineering department of that road.

He next is found in civilian life, as chief engineer of the Sycamore Springs Water Co., at Tombstone, Arizona, where he served a term of years. Again hearing the call of railroad work he returned east and was employed for a period by the L. T. & S. W., now a part of the Santa Fe system, and also with the Clover Leaf, in the capacity of chief engineer, prior to his becoming associated with the Nickel Plate in 1884, as division engineer.

His ability was quickly recognized by those in charge of the destinies of the local road and his promotion was rapid, he holding the position of division superintendent of the eastern division, between Bellevue and Buffalo, and in 1893 was advanced to the office of general superintendent, continuing to serve faithfully and honorably until the needs of the road called again for his advancement and in 1906 he was made general manager and continued in that capacity until his retirement from active service on January 1 of the present year.

His tender consideration of others and his devotion to the interests of the railroad, while at the same time not losing sight of the welfare of the army of employees who served in various capacities under his direction, has won for Mr. Johnston an affection among railroad men which is equalled by few, and no higher tribute could be asked by human than that former associates and employees would leave the labors of the hour and travel many miles to be present at a testimonial dinner, as was done by men in all departments and from all divisions of the Nickel Plate who gathered here today.

A pleasant feature of the meeting today was the presentation to Mr. Johnston of a gold watch as a token of esteem, while a book of testimonials, containing more than three hundred letters from employees, also was presented.

As stated above, Felton has been very active in railway matters connected with the war. He was director-general of military railways at the time of the Mexican Border trouble and since our entry into the struggle in Europe, he has had full charge of the organization of the railway regiments which have gone over to France and more recently has been made vice-president of the Shipping Board in connection with port terminals facilities.

1874

CHARLES F. READ, *Secretary*,
Old State House, Boston

A lunch of the Class Association was held at the Boston City Club in June, at which the following members were present: Arnott, Barrus, Brown, Chase, Elliot, Lamb, Mansfield and Read.

The secretary has been elected president of the Massachusetts Society, Sons of the American Revolution and also vice-president general, for the District of New England, of the National Society, Sons of the American Revolution.

George H. Barrus, president of the Class Association, is engaged in supervising the best of the power plant of the new 12-way shipyard of the Emergency Fleet Corporation which is located on the Schuylkill River near Bristol, Pa.

Eliot Holbrook writes the secretary that at present he is not actively engaged in railroad business. His address, however, is still in care of the U. P. Headquarters, Omaha, Neb.

James L. Arnott has entered into special service with the United States Government, with headquarters in Portland, Me.

1878

E. P. COLLIER, *Secretary*, 256 Summer St., Boston, Mass.

No report received from the secretary.

The Editor learns with regret from the *Somerville Journal* of June 4, 1918, that Isaac M. Story died May 25, 1918.

Another death in this class is that of Dr. Charles D. Sawin on February 8, 1918.

1880

GEORGE H. BARTON, *Secretary*,
89 Trowbridge Street, Cambridge, Mass.

The secretary has recently received a letter from Chase, who, with his son, forms a company of mining engineers in Denver, Colorado. Extracts are as follows:

Your interesting letter of April 23 was duly received. The Barton family is sure enough doing its part in the war, and may they all come back safe with tales to tell their grandchildren.

Our family is not in it. My oldest boy, Kirke, is beyond the draft age and, besides, is more useful at the Durango smelter than he would be in the trenches, and also has a wife and baby. My other boy is 27 but was put in Class 4 on account of having a wife dependent on him.

The old man has racked his brains to see how he could do a few bits but it looked hopeless till the other day he had a wire from Van H. Manning, Director of Bureau of Mines, asking me to give a portion of my time this summer in helping the government get track of mines producing the useful metals, such as tungsten, molybdenum, antimony, and 50 other different war elements. The remuneration is expenses paid but I was glad to accept, and am now subject to orders to be sent anywhere in this neighboring territory. Other men will cover the same ground in other States so I will not be called far from Colorado.

Anything to get a whack at Kaiser Bill and his infamous methods. Don't know yet what proportion of my time will be asked for, but Uncle Sam can have all I can possibly spare from my regular work.

My son goes with me on nearly all my trips and we cover the country from Mexico to Alaska, including Canada, but the Mexico trips have been few of late years as we value our hides very much.

Lucky is the man who gets into a business that he loves and still luckier if he also marries the right girl, which I surely did and guess you did also, but it is tough to take their boys and send them to France, and no monument can be too grand to commemorate the mother's part in this awful maelstrom.

It is very encouraging to the secretary to occasionally get a letter, especially one like this, from members of '80. There are but four of us left that graduated on that warm June day so many years ago. One, Small, always genial and pleasant under all circumstances, left us within six weeks after our graduation; Brown, Clark, and Millen at various times later on. Hamilton, Miller, and the secretary, here in Boston, and Chase in Colorado, are those remaining. It is doubtful if any other class can show a fifty per cent loss of its graduates.

Owing to the smallness of the class there has been no regular class dinner since that at our graduation, though the class of '79 has twice asked '80 to unite with them at their dinners and this offer has been accepted twice.

The secretary occasionally sees Hamilton and Miller for a short chat, but he has nothing to report from them. The secretary personally is still engaged in teaching geology to the teachers of greater Boston who in turn transmit it to the children in their schools. He is also director of the Teachers' School of Science, the three other departments of which are engaged respectively in teaching teachers botany, geography, and zoölogy for the same

purpose as above. This school was instrumental in establishing a Children's Museum on the shores of Jamaica Pond which has been extremely successful in developing and assisting the teaching of elementary natural science in the schools of greater Boston. The secretary was the president of its Board of Trustees for three years and is still a member of that Board. In connection with war work the secretary has personally done only incidental things. He is, however, ready and willing to be called upon for service in any direction that he is capable of working. His son, Donald C. Barton, A.B., H. U., '11, and Special M. I. T., '11; A.M., H. U., '12, and Ph.D., H. U., '14, is meteorologist with the U. S. Signal Corps, somewhere in France; and his daughter, Helen M. Barton, A.B., Radcliffe, '14, and S.B. Simmons College, '16, is in charge of a room in the Ordnance Department, Washington, D. C. The latter is to be married on July 6, 1918, to Harold F. Eastman, A.B., H. U., '16, and Special M. I. T., '17. He also graduates from the Aeronautical School at M. I. T. on July 6, and within a few days after marriage goes into camp with the expectation of going to France in the near future, while the lady returns to Washington to her duties there.

1882

WALTER B. SNOW, *Secretary*, 136 Federal Street, Boston, Mass.

On June 5 Munroe received from George Washington University the honorary degree of Doctor of Letters (Litt.D.). It was here that he delivered not long since a convocation address on "Education after the War." He has been extremely busy in his most interesting and responsible work as vice-chairman of the Federal Board of Vocational Education. This work has recently been doubled by the passing of the bill with an appropriation of two million dollars, which places upon the board responsibility of vocationally rehabilitating disabled soldiers and sailors. A worthy account of Munroe's activities will be found elsewhere in this number.

Mansfield writes from 914 French Street, Erie, Pa.: "If you ever hear of any of our class coming this way, tell them they must stop off in Erie and visit me."—At last accounts, Snelling was seriously considering going to France in the hope that through his engineering and architectural experience and his knowledge of French he might be of service.

1883

HARVEY S. CHASE, *Secretary*, 84 State Street, Boston, Mass.

The American Engineering Service Committee, of which George J. Foran is chairman, handles the entire personnel situation in

regard to engineers for the various departments of the government and is considered one of the most important committees operating at this time.

The American Engineering Service Committee has extensive classified lists of technically trained engineers in all parts of the country, from which thousands of names have already been furnished to the government and to others for military and civilian engagement; is prepared to supply names of civil, mechanical, electrical, mining, metallurgical, automotive, aeronautical, chemical, refrigeration, heating and ventilating and other professional engineers and assistants.

The secretary has been appointed by Federal Trust Company to supervise uniform supplies for all packing houses in the United States.

1886

ARTHUR GRAHAM ROBBINS, *Secretary*,
M. I. T., Cambridge, Mass.

The secretary is indebted to the Alumni Office for the following items of class news:

At the recent commencement exercises at Stevens Institute of Technology the degree of Doctor of Engineering was conferred on J. Waldo Smith, engineer of the Board of Water Supply of the City of New York.

Dr. Alice G. Bryant represented the Institute at the April Council meeting of the Association of Collegiate Alumnae, held in Chicago, serving in place of Miss Babcock, '08, the regular councillor.

1887

EDWARD G. THOMAS, *Secretary*,
360 Rockingham Street, Toledo, Ohio

Since the death of Maj. Henry Souther there has been named for him a government flying field in Americus, Ga., in recognition of his really valuable work in the Air Craft Division of the Signal Corps—Souther Field.

The Society of Automobile Engineers has decided on a memorial for him, the form it is to take not yet having been decided, though there is some thought of connecting it in some way with Technology, which Major Souther dearly loved.

The Engineering Section of the Air Craft Division has also a plan for a tablet in his memory. These things have happened since the "Technology" article was published. Otherwise, it is a most satisfactory history of Major Souther's work.

1888

WILLIAM GAGE SNOW, *Secretary*, 95 Milk Street, Boston

The secretary regrets to report the death of two members of the class.

Clarence Browning Vorce died in New York City on February 4, 1918, from the effects of an operation. He was born in that city on June 23, 1866, and during his boyhood lived at Farmington, Conn.

He graduated from the Institute in the department of Civil Engineering. In 1888 he was located in Hartford as assistant engineer on improvements on the New York, New Haven and Hartford Railroad, and N. Y. and N. E. R.R.

In July, 1889, he entered the employ of the Lake Shore and Michigan Southern Railroad, at Toledo, Ohio, and remained with that company until 1893, serving as transitman, assistant engineer and principal assistant engineer. Later he was assistant engineer to the engineer of construction of the New York, New Haven and Hartford Railroad.

From 1897 to 1906 he was engaged in private practice in Hartford, Conn., doing general engineering work.

In the latter year he entered the employ of Sanderson & Porter, Engineers, and became actively connected with important railway and hydraulic construction in their New York and San Francisco offices. He later became connected with the British Columbia Electric Railway Company, in charge of construction and maintenance.

Later he reentered the employ of Sanderson & Porter and was associated with their work from 1914 until his death. Vorce was considered an engineer of exceptional ability and good judgment.

He was a member of the American Society of Civil Engineers, of the Electric Railway Association and past president and member of the Connecticut Society of Civil Engineers.

Vorce had been away from the East so much of the time since graduation that he had been unable to meet with the class, but he is well remembered, having been prominent in class affairs at the Institute.

He married in 1892 Miss Virginia Osborn of New Haven, Conn., who, with a daughter, survives him.

James Lincoln Belser died March 14 of this year.

He entered the Institute from Marlboro, Mass. In 1887 he became a draftsman for the Whittier Machine Co., Boston, where he remained until 1892.

He then entered the employ of the American Sugar Refining Co. in South Boston, and in Cuba as one of their engineers. In 1902 he was with the Planters' Compress Co.; in 1903 with Lockwood, Greene & Co., Boston mill engineers; from 1904 to 1907 with the Trimount Manufacturing Co.; in 1908 with the Boston

Steam Specialty Co. Later he entered the employ of the Boston and Maine Railroad as assistant engineer in the mechanical department where he had charge of many installations of power and heating apparatus.

He was connected with this company at the time of his death.

Belser was nearly always present at our class reunions, where he heartily entered into all the events.

He had long suffered from an illness to which he finally succumbed, although for years he put up a fight against odds and kept at work when other men under the same condition would have given up.

In June, 1899, he married Annette C. Eldredge.

Major Sanford E. Thompson is a very busy man in the office of the Chief of Ordnance, Washington.—Major Fred J. Wood finds his work very congenial in the Constructing Quartermasters' Department at the Curtis Bay Ordnance Depot, South Baltimore, Md.—Arthur T. Bradlee is on the War Service Committee of the Cotton Goods Department, and is obliged to be in New York and Washington a good deal in connection with the work of this committee.—George F. Goodnow of Chicago reports that his son, Albert C., of the class of 1913, M. I. T., is in the naval service at Great Lakes, Illinois, and his son George, who was a freshman at Cornell last year, is a corporal in the 149th Field Artillery now on the fighting line in France.

Edwin O. Jordan of the University of Chicago is engaged in training men for sanitary and laboratory service, and during the past few months has had to visit a number of camps in connection with the outbreaks of epidemic diseases, chiefly pneumonia and meningitis.—Allen Hazen, consulting civil engineer, has recently been in San Francisco in connection with his regular line of work.—C. Leonard Brown is Senior Highway Engineer with the office of Public Roads, Department of Agriculture.

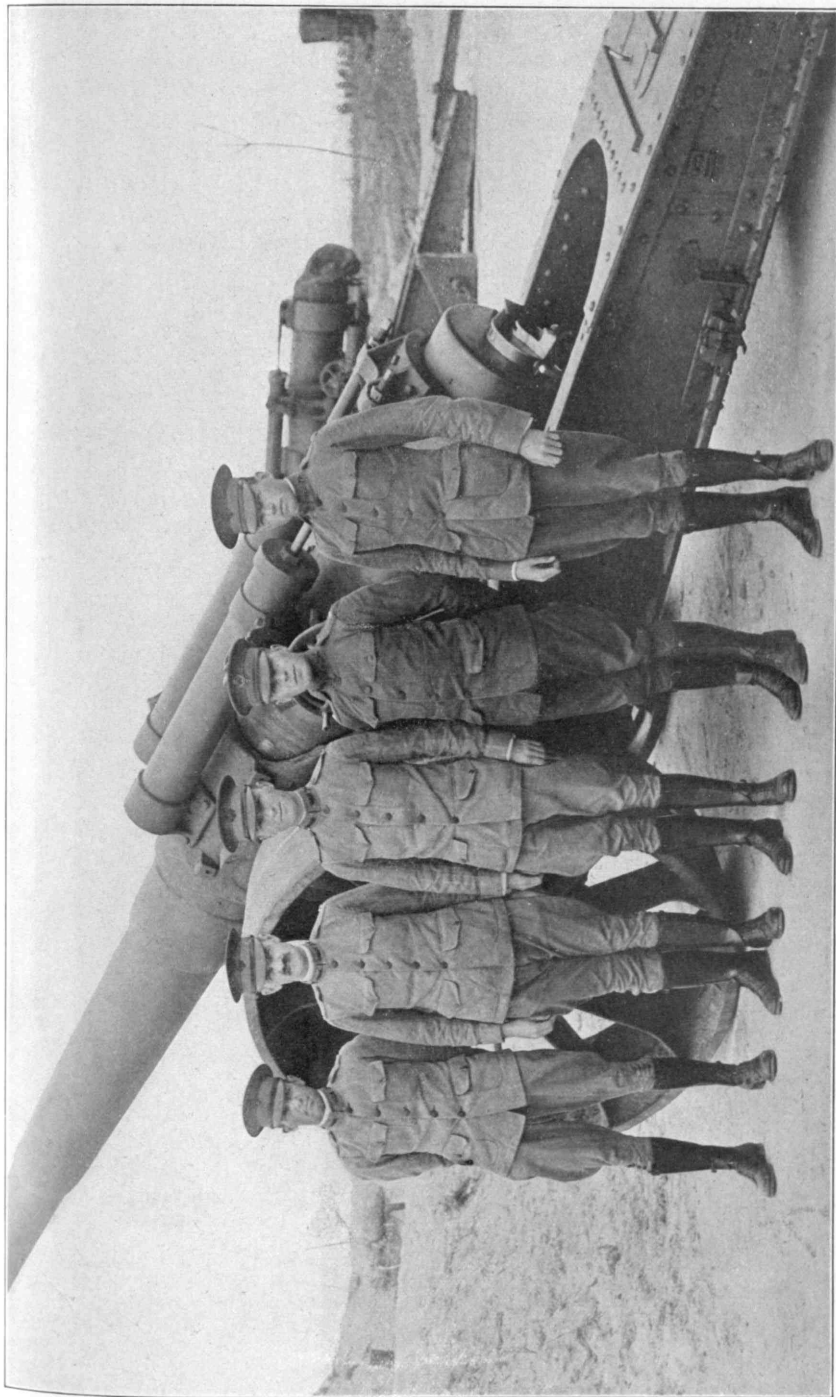
His home address is 1339 15th Street, N. W., Washington, D. C. He was formerly in Southbridge, Mass.

The secretary has just learned of the marriage last August of Edward Collins, who is in the Patent Office, Washington.

1889

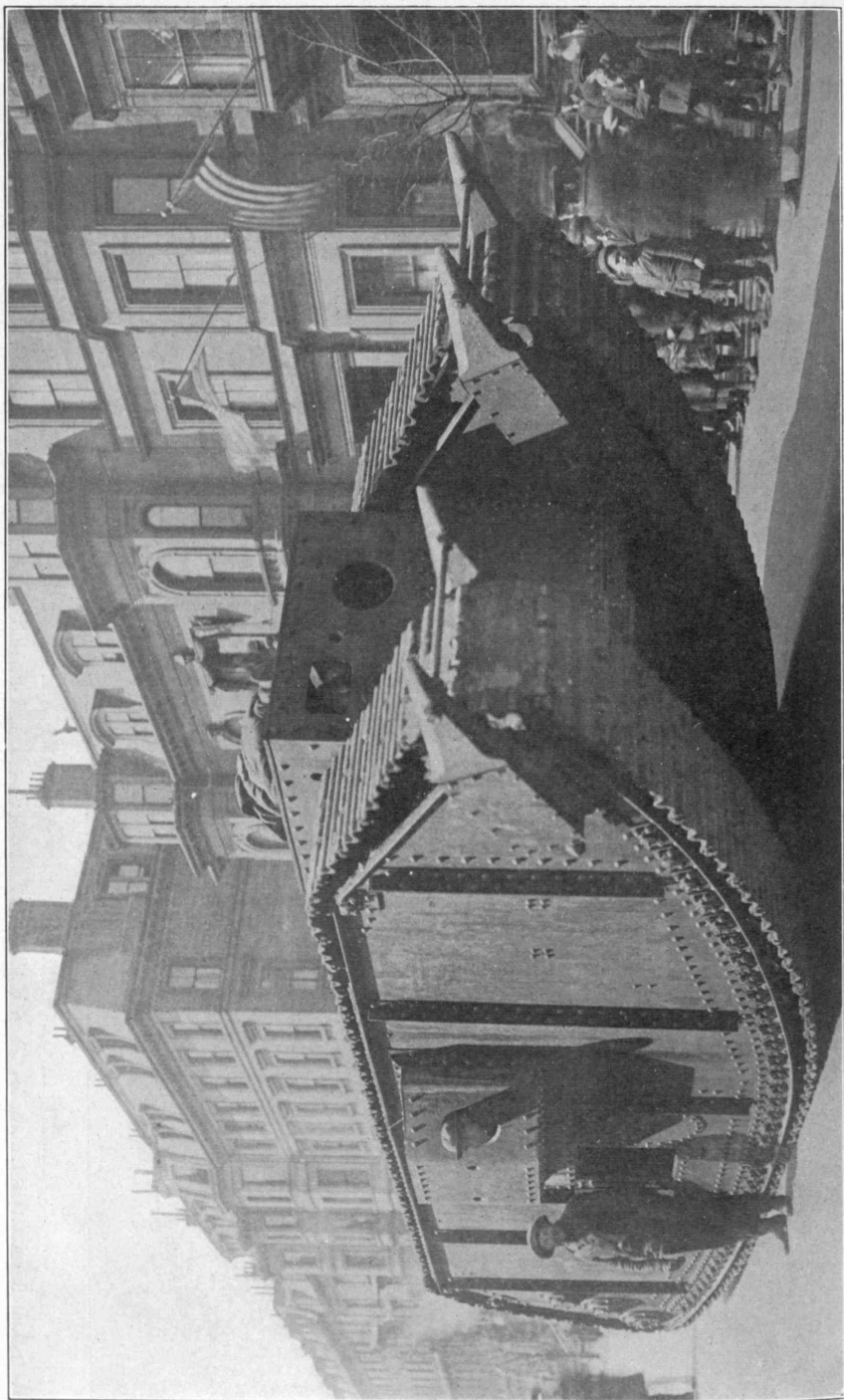
WALTER H. KILHAM, *Secretary*, 9 Park Street, Boston, Mass.

Montgomery Rollins died on April 17 last, at his residence in Chestnut Hill. He was born in Concord, N. H., August 25, 1866. He attended the Massachusetts Institute of Technology, and had been actively engaged in business until 1902, since which time his life has been devoted to literary work, including especially publications on financial subjects. He was a member of the firm of E.



ALUMNI, INSTRUCTORS OF COAST HEAVY ARTILLERY SCHOOL AT FORT MONROE, VA.

Left to right: Capt. F. S. McClintock, C. A. R. C., 1909; Capt. F. G. Perry, C. A. R. C., 1909; Capt. A. C. Dorrance, C. A. R. C., 1914;
1st Lieut. T. D'A. Brophy, C. A. C., 1916, and 2d Lieut. D. L. Patten, C. A. C., 1916



THE FIRST AMERICAN TANK, "MADE IN TECHNOLOGY"

Resting (temporarily) on Arlington Street

H. Rollins & Sons until 1898, when he organized the firm of Montgomery Rollins & Co., with which he was identified until the time of his retirement from business.

During the past few years much of his time has been spent at his country place in Dover, N. H., which resulted in his active participation in many public and civic affairs of his native state. During the past few months his attention had been given almost exclusively as a member of the State Committee, to the work of preparation for the Liberty Loan campaign, and as chairman of the commission caring for the war dependents of the state.

He has been a resident of Chestnut Hill for the past twenty-five years and constantly identified with its social life as well as with every movement for community benefit, and his loss there will be keenly felt.

The immediate family includes his wife and two daughters, Mrs. John Hollister and Miss Sally Rollins.

Rollins of late years probably enjoyed the reunions of the class as much as any member, and he was distinctly social in character and took great interest in making the various reunions successful.

E. V. French is now a major in the National Army and has gone to France on matters connected with fire protection of government work which has been erected overseas. The *Boston Globe* of April 9 has the following from its Andover correspondent:

Edward V. French of this town, who has been appointed a major in the National Army, has for many years been connected with factory mutual fire insurance companies in fire protection engineering work, and he will do special work for the government, it is understood, along these lines. He expects to see service overseas.

Major French was born in Lynn, March 11, 1868, the son of the late B. V. French of that city. He was educated in the Lynn public schools and was graduated from the Massachusetts Institute of Technology with the class of 1889. For the past eleven years he has been vice-president of the Arkwright Mutual Fire Insurance Company of Boston. He has been connected with various engineering problems and served four years on the Lynn Water Board, previous to his removal to Andover to reside.

He is a member of the American Society of Mechanical Engineers, the New England Water Works Association, the American Water Works Association, the National Fire Protection Association and the American Institute of Electrical Engineers. He recently served as a member of the building committee of the new Andover High School. He is a member of Christ Episcopal Church.

Major French is married and has two daughters, Helen and Margaret, both students at Abbot Academy.

E. V. Shepard has for the past winter been connected with the Belgrade Great Pond Association, Belgrade, Maine, and has been interested in restocking Great Pond with bass. Shepard has been made chairman of a committee of three in restocking these ponds.

Hobbs' son, Lieut. Marland C. Hobbs, who is an officer in Co. L, 104th Infantry, was wounded on April 13 and on April 28 together with 122 other men was decorated with the War Cross by a French general. The *Boston Transcript* contains the following description of the event:

With the American Army in France, April 29 (Associated Press).—The French Army yesterday paid an historic tribute to the United States when 122 soldiers, sons of Massachusetts, were decorated with the war cross for bravery displayed in recent fighting. The ceremony, which was held on a picturesque field a short distance from the front line trenches, was one of the most impressive in which American soldiers had participated since their entry into war.

One hundred and seventeen men from the 104th (Massachusetts) Regiment who bore the brunt of the German attack in the Apremont forest on April 12, received medals, as did five men of another regiment who had participated in earlier fighting around Soissons. Here and there in the line of heroes were spaces representing Americans who were killed or wounded seriously.

It had been raining in the forenoon but the sun broke through the grayish clouds when the 104th Regiment, which also was decorated as a unit, passed in review before American and French generals. Bands played "The Star Spangled Banner" and "The Marseillaise," while the American and French flags waved proudly and defiantly within the sound of the roar of German guns.

The French general, in conferring the decorations, said of the regiment:

"It showed the greatest audacity and a fine spirit of sacrifice. Subjected to very violent bombardments and attacked by large German forces, it succeeded in checking the dangerous advance and took at the point of the bayonet in a most vigorous way prisoners and some demolished trenches from which it had fallen back at the first assault."

The few civilian spectators who witnessed the ceremony included several French women, residents of villages near the front. They cheered as the young Americans, wearing full equipment and helmets, marched by. Some Americans attached to other units were greatly moved when the band played the National Anthem. They saw the bright new flag and realized what their comrades had been through to merit the honors. The general commanding the American forces shook hands with and spoke words of encouragement to each of the men decorated, saying it was the proudest moment of his life to be the commander of men who had done such great honor to the country.

He was born in Brookline 23 years ago and graduated from Harvard last year. He attended the Officers' Training Camp at Plattsburg from May to August of last year and on his graduation was commissioned a second lieutenant. After a few days of duty at Camp Devens he was ordered to L Company, 104th Infantry, and with his regiment sailed for France.

The secretary has been notified of the death of Horace P. Edgette, '89, which occurred on February 9, 1918.

Hart's daughter, Miss Helen Weld Hart, was married on the 3d of June to Mr. Lloyd Nichols, Ensign, U. S. N. R.

The Secretary's firm has been appointed by the Emergency Fleet Corporation of the U. S. Shipping Board, as architects for the Shipping Board's houses in connection with the Portsmouth, N. H., shipyards, which comprises the laying out of a complete suburb and the erection thereon in doublequick time of 300 brick houses and 8 dormitories for men. Some of these dormitories are at the time of writing, June 28, practically ready for occupancy.

The following has been received regarding Merrill's activities in connection with war services:

W. H. Merrill, President of Underwriters' Laboratories, Chicago, has been appointed section committee chairman of the newly organized Fire Prevention Section of the War Industries Board of the Council of National Defense. Mr.

Merrill is now in Washington to assume the duties of the new position for the period of the war.

Part of the work of the new section is the securing of information on the conditions as to fire hazards existing in plants manufacturing munitions and providing adequate protection where surveys show plants working on government contracts to be poorly guarded against possible fire loss.

State fire marshals, municipal fire prevention bureaus, insurance boards, bureaus, associations, companies, in fact, all existing fire prevention organizations, are being enlisted by the section in a coöperative effort to avoid interference with the government's program through fires in munition plants and government establishments.

That duplication of effort by inspectors or others having a common errand in building and plans may be prevented, the matter of licenses or permits to inspectors, engineers and others to enter government and munition plants for the purpose of inspection of fire hazard conditions will be handled by the Fire Prevention Section.

A further and important service to be rendered is that of giving prompt and correct information and advice to all government departments on fire prevention problems.

Mr. Merrill brings to the Fire Prevention Section the experience in fire prevention engineering gained during a period of twenty-five years of active participation in nation-wide fire prevention work. He started as an electrical inspector in Boston and Chicago and later worked out the idea and organization of underwriters' laboratories established and now maintained, for service, not profit, by the National Board of Fire Underwriters. The steady growth and valued service of the laboratories demonstrates the executive ability which Mr. Merrill brings to the new section created to aid in winning the war.

Arthur L. Williston, principal of Wentworth Institute, has been appointed educational director of the training of drafted men in industrial and mechanical lines, in schools and colleges throughout New England. The appointment comes through the War Department Committee on Education and Special Training, created by Secretary Baker, of which Colonel Hugh S. Johnson is chairman.

Under the terms of the appointment, Mr. Williston will have full authority to represent and act for thousands of National Army men training to be army engineers and mechanics, now stationed at Tufts, Brown, University of Maine, New Hampshire College, Rhode Island State, Worcester Polytechnic Institute and others as drafted men are assigned to them. School instructors and United States army officers will carry out the programmes of instruction as arranged by Mr. Williston.

More than 500 drafted and registered men from all parts of New England are now training to fit themselves for efficient service in engineering regiments and airplane mechanic squads at Wentworth. There will be a total of 1500 men detailed at the Institute in the next few months.

1890

GEORGE L. GILMORE, *Secretary*, Lexington, Mass.

Notice was sent in April to all members of the class in the vicinity of Boston, as follows:

I am sending you enclosed report of the Technology War Service Auxiliary, to interest the ladies in the grand work that is being carried on by the ladies at the

Rogers Building, to help the Tech boys in the service. As you know, we fellows of the alumni have subscribed to the funds, but the ladies are now doing the work. The work is increasing, however, and the assistance of more is needed. Will you not show this to the ladies of your family, and if any of them can give any time during the week, if they would call and see Mrs. Edward Cunningham at the Rogers Building, she will be only too glad to meet them. Several of the wives and daughters of our members have been assisting, and if more can do so, it will help to show that "Ninety" is still trying to do its full share. I wonder if you realize that over 2200 Tech boys are in uniform, of whom over 1500 hold commissions, and already about 500 are on the other side. In addition to that, there are about 2000 of the Tech Alumni assisting the government in industrial work. Sincerely yours,
G. L. Gilmore, Secretary.

Several responses have already been received. The work that is being done at the Technology War Relief at the Rogers Building is far beyond the realization of any one who has not been in touch with it. Tech men are supplied all over the country and abroad. Supplies are sent to the Technology Bureau in Paris, and Tech men are constantly dropping in.

When we realize that six of our own classmates are on the other side, it is certainly a satisfaction to those of us remaining at home to feel that even in this little way we are doing something to help.

The following letter was received from Andrew W. Woodman recently. The secretary, who attended the United States Chamber of Commerce Convention in Chicago, in April, had the pleasure of seeing Andrew for a few minutes, and found him to be the same old boy as he was thirty years ago at Tech.

Here is a most insignificant "bit" for Technology War Relief.

You ask what we are doing, so here's my small part of a huge undertaking:

At our Bridge Works in Joliet, Ill., known as the Joliet Bridge and Iron Company, we are producing floor girders longitudinal, hatch coamings, deck beams, floor plates, frames, engines and boiler casings, for the "A" and "B" ships of the American International Shipbuilding Corporation at Hog Island, having about fifteen thousand tons to produce.

At the recent conference of fabricators with Admiral Bowles at Hog Island, our work was pointed out to the visitors in the hull of the first ship laid down.

At our boiler works in DePere, Wis., known as the DePere Manufacturing Company, we are producing seventy-two of the seven hundred H.P. Standard Marine Water Tube Boilers for the wood ships which are being built by various shipbuilders for the Emergency Fleet Corporation, and at that plant we won the distinction of passing the first boiler under final test, being one of eighteen or twenty shops engaged in the same work, and all starting even.

While this is a very small "bit" compared to what some of our more justly famous classmates are doing, I can assure you that my heart is deep in the work and I am trying to give Uncle Sam the best that is in me and striving to supply at top speed my small part of the ships which will bear to the boys in France the supplies and comforts they so much need.

We regret to announce the death of our former classmate, William Irving Finch, at Hampton, Va., December 29, 1917.

The following article appeared in the *Harvard Illustrated* by "Billy" Ripley, relative to students aiding in building ships:

Many of the younger college men, not yet eligible for military service of one sort or another, are doubtless beginning to consider at this time what they can do to help the nation during the summer months. Opportunities and overwhelming

needs exist in at least three directions, namely, in farming, in employment at munitions manufacture, and in shipyards. Concerning the first two of these, I have no particular knowledge, but as respects the shipping industry, it has been my good fortune lately to survey the labor situation for the government along the New England coast, and I am deeply impressed with the dearth of labor in this well-nigh indispensable line of work.

It would be unwarranted, perhaps, to allege that shipbuilding service takes priority over either farming or employment in the manufacture of munitions, but I am strongly inclined to believe that it is at least of equal importance with the other two. If one is unable to offer military service on account of age or disability, it will assuredly be a comfort in later years for one to look back at such a contribution as this, rendered to the preservation of one of the most precious assets of civilization—democracy and liberty.

Major-General Goethals, acting quartermaster-general of the army, has appointed W. Z. Ripley of Harvard University as administrator of labor standards for army clothing. Professor Ripley comes to this work with intimate knowledge of conditions in the clothing industry and with practical experience as a result of having been a participator in various arbitrations involving the trade, as well as having directed certain adjustments looking toward making conditions in the trade more satisfactory. The administration of labor standards for army clothing will remain as heretofore a branch of the industrial relations work of the quartermaster-general's office, and Professor Ripley will report to E. M. Hopkins, in charge of this work. Ripley was the arbitrator in settling the strike of the thirty-five thousand textile operatives at New Bedford early in June.

The general demand of the employees was for 20 per cent advance, and the manufacturers had offered 15 per cent advance. Ripley's method of settling was by splitting, and giving them $17\frac{1}{2}$ per cent advance.

Two interesting letters have been received from our classmate, Lieut. John B. Blood, that will undoubtedly be of interest to us all.

John enclosed two photographs of himself: one with the regular officer's hat, and the other wearing a helmet. In the picture John looks very much as he did in our early days at Tech, as he has lost his beard, only wearing a small mustache, and with the hat on, the vacancy on the top of his head is not noticeable.

U. S. S. KWASIND, CARE OF POSTMASTER, NEW YORK CITY.

Dear George:

Some souvenirs from foreign service. Note I do not say "the front." Send you a ship's cap ribbon. Also a vaudeville program to show how we occupy our time between engagements with submarines or landing parties ashore. Post card shows how we coaled ship the last time.

Hope to get a bit of leave this summer and to see all my friends around Boston.

How does the war situation look to you now? That is one of the things I miss most; namely, to get views of people on the war situation who have not all their observation limited and exactly the same as my own.

* * * * *

Here is how I look now, as a fierce warrior, and with a tropical helmet to go ashore for a ride on a pony.

Have not been cruisy for a couple of weeks. Am about to get a little time to myself with which I shall try to get in some statesmanlike work and make a plan for international concensus to work to in war aims, one that will give a basis of international relations without violating the sovereignty of single nations, or small dependent nations.

Hope to get a bit of leave before the snow flies, but will believe it when I see it. Regards to all. Sincerely, *John Balch Blood*.

The following article relative to our classmate, Dr. Franklin Warren White, appeared in a recent magazine:

It was Bernard Shaw who said that nowadays we looked upon fatness as a sign either of disease or of bad manners. Before this war is over we may come to regard it as indicating lack of patriotism. Dr. Franklin Warren White of the Harvard Medical School comes near saying this in a lecture printed by the *Harvard Alumni Bulletin*. He does not quite say it. "There is another thing," he begins, cautiously, "which I hesitate to speak of, but which we must consider in war times. People who are fat are obviously eating too much. . . . But remember there is no healthy gain in weight after one reaches the age of forty years. . . . It is only fair to say that persons who are thus overweight are not as healthy as other persons; a stout man is actually more short lived than the average individual." The tone is gingerly and conciliatory, a little as if Dr. White lived in a community where stout men had a majority, or in a circle of fat and tetchy relatives. But the sense of his words is plain and good; most of us, however patriotic, eat too much if we have the money, and some of us betray our weakness by our size. And one reason we eat too much is that we are too lazy to give up the old habit of bolting and to form the new habit of chewing. "When we chew our food thoroughly, there is a great economy," as Dr. White says; "we need only about half as much."

G. L. Gilmore is with the Production Division, Equipment Section, of the Boston District Ordnance Department, as a production engineer on textiles.

Letter received from J. K. Noyes, and he is as lively as ever. His two-year-old boy is evidently taking a good deal of the time of his dad.

As we are desirous to keep track of all our members of the class of '90 who are in the government service, if any of you have not notified the secretary, we would consider it a favor if you will do so at once. There are already six of our members on the other side, several in uniform in this country, and others in civilian work, serving until the war is over.

The following letter has just been received from Darragh de Lancey, who is now located in Room 237, State War and Navy Building, Washington, D. C. It looks as if after this war is over the secretary and de Lancey will have to go on a bat to spend their salary of \$1 a year.

My dear Gilly: Your letter of May 18 was like a cool breath from the hills on a sultry day. It also shows how careful we must be as to our conduct, for we never can tell when we are under observation. Who would have thought that my chance encounter with Morris Knowles in the Cosmos Club one night should have brought me the pleasure of a letter from you about two days afterward?

The story of my government activities is a rather long one and somewhat involved. In a nutshell, our Second District Board in Connecticut, of which I am chairman, suddenly realized that many skilled workers, such as toolmakers, etc., were being taken away through the draft in spite of everything our board could do to prevent it. This led to a little quiet thought and the formation of a scheme by

which these men who had been taken into the army by mistake might be returned to industry where they would be much more useful.

A trip to Washington, a two-minute conversation with Second Assistant Secretary of War, Mr. Stettinius, resulting in a quick response, and I have lived in his office ever since.

What we are trying to get set up is the Munition Personnel Bureau, whose job it shall be to see that production on government contracts does not fall behind the official program due to any lack of skilled labor. This means not only that we must get out of the army many of the skilled workers now in it, who will be much more valuable at work, but we must make an effort to shift skilled workers from non-essential industries into essential industries, and then when all has been done, we must tackle the biggest phase of the problem, namely, the trade education for the additional men needed.

We are hoping to get an official general order from the Chief of Staff, setting up this Bureau, and the "powers that be" have been kind enough to ask me to stay down here and run it. Of course, we may strike snags that will limit the field of usefulness of this Bureau, but we are working hard to make it as effective as possible.

I have very pleasant relations with Captain Fitzpatrick, of the Boston District Ordnance Office. I am very much interested to see that you have been unable to withstand the lure of the game and have hooked up with the same institution yourself. I only hope they will give you a commission, Gilly, because I would like to see how the uniform would fit you. When we are able to "foregather" again, we shall have to compare notes on our war experiences. I have established very pleasant relations with Ike Litchfield, with Jimmy Monroe and with George Hale, with the last of whom I dined the other day.

Changes of Address

Wisner B. Martin's address now is 50 Highland Avenue, Cambridge, Mass.—Harry A. Kennicott's address is 301 13th Street, Nebraska City, Neb.—Moses Lyman, Jr.'s, address is 16 Westmoreland Avenue, Longmeadow, Mass.—Frederick C. Moody's address is care The White Company, Corporation Sales Department, Cleveland, Ohio.—George A. Sonnemann's address is 610 Washington Street, Spokane, Wash.

1891

F. A. WILSON, *Secretary*, Nahant, Mass.

The secretary and Herbert Kimball—excuse us, Captain Kimball—dined together in Washington in April. Herbert certainly looks as if he were curing the absurd insufficiencies which our prominent Republican newspapers and statesmen have been pointing out. We know, by the way, that newspapers had to make their way by yelling—but isn't it strange that our wise and carefully guarded choice of representatives in Congress has not averted the uselessness of a group that also yells? "The Harp that once through Tara's Halls" is down and out for keeps—though it could perform equally valuable war service.

We note that H. I. Cole, another genial spirit of '91, is mixed up with fish at the State House hearings on fish trust prices. His stories were fishy, of course, but we thought he always looked honest.

Forbes has his famous Battleship Baseball installed at Commonwealth Pier to make sport for the boys there. Howard certainly worked out a clever scheme for indoor baseball. Have you seen it? It pits the pitcher and batter directly against each other. Is there another indoor athletic game, except tennis, which does this? Most play only against each other's scores.

The secretary met Harry Bradlee (Harry Gee, not Harry Cee) at Hog Island recently. Harry was only seeing the sights. He runs another department of that big concern.

The class fund for Tech War Relief Work approaches \$2000. We want 50 per cent more, to reach our mark. The amount now raised comes from about fifty men. Come, all ye faithful, we were going to say valiant, but Vaillant has subscribed. Let the one hundred and fifty remaining send in five or ten dollars each and we will quit heckling. Heckling is for suffragists. It is hard for common people to do. Send that money just to make us stop.

The last meeting of the Class Executive Committee was on December 7, with Bowen, president; Fiske, treasurer; Palmer, H. G. Bradlee, Alley, Vaillant, Young and F. A. Wilson present, and with Prof. H. W. Smith and General Secretary Humphreys as guests. We then decided that we all had public spirit, but bad habits—"Let George do it" manners in public affairs. Just now "George" is overworked. Help him out, give him a push, with a ten-dollar bill transported by Uncle Sam for three cents. You have had a yard or two of circular material, printed, not the kind with a center and a circumference, sent to you. Don't you know that the Technology work in France is valuable, and incidentally the envy of other colleges?

On Saturday, June 15, a half dozen automobiles took our boys (yes, boys, though *æt.* 50!) down to the Eastern Yacht Club at Marblehead for the day. Fifteen turned up—pretty good for these strenuous times. They were President Steven Bowen, Treasurer Henry A. Fiske, Secretary F. A. Wilson and Ryder, Earl, Campbell Moore, Burns, Colburn, Vaillant, Young, Capen, Hatch, Palmer and Gifford Thompson—him with the only beard present.

After a hearty lunch we took over the speedy motor launch *Speedwell* and went out to assist our navy in hunting submarines. We saw tin cans and spar buoys, which aroused heartbeats in some of our more timid friends, but no other kind of a periscope. It is suspected that the noise of the launch's horn, blown in an experimental manner by a group in the middle of the boat, may have scared them off—navy men take notice. For military reasons the names of these experimenters will not be published. Work out a game of fifteen and you may get at the young and valiant conspirators who hatched up this effort.

Prior to this expedition to Manchester, we had a lunch. Lunch doesn't come before launch in the dictionary, but it did in our

"Tabular View." How they did eat—all but your secretary, he didn't.

At 6 P.M. we sat down at a round table and had a dinner—oh! what a dinner! Even Lin Damon, the epicurean, who blew in in time for it, could not get enough of it. It was supposed to be all fish, but the two or three gourmands who always overeat hollered for more and on came broiled chicken. Bar? Yes, several—out in the harbor.

We forgot to say that the launch did not go as she ought to have, and we nearly got wrecked on the "Sow and Pigs," or whatever those ledges are called.

After dinner came class affairs and election of officers. F. A. Wilson was chosen president; George A. Vaillant, treasurer; and Henry A. Fiske, secretary. The present scribe is astonished at this action of the nominating committee. After a long line of distinguished presidents from Fred Blanchard (who now writes only to curse) to Steve Bowen, we are surprised at such a drop. And we are sure the new secretary can't write as we do, and we don't know whether the new treasurer has money enough to support us or not; in fact, we may have to support him. So, all in all, the present scribe will quit his pencil and go to work at something really congenial. By the way, Henry Young appears to be our first and only grandfather. What a name for a grandfather! Surely war is hell.

Jim Swan and Arthur Alley failed us, promising to come and defaulting. Warrants have been issued for their arrest. Is it the first time?

Walter Henderson and Ernest Tappan are in France on Y. M. C. A. work, while Leeming and Campbell are majors over there. Jerry has charge of docks at some place or other, and Woody tells the boys where to go for breakfast. Here follows part of a letter from Major Leeming:

Life has dealt with me most kindly since I arrived here. After a very cold and miserable January on the coast with my motor train, I came through here on my way to the front, but stopped off to see the chief quartermaster and throw out my chest and tell him what a wonderful train I had, all Boston and New England boys, the finest in America. He told me, "Forget them, sit down here and get to work." So here I have sat ever since, at a desk, just the same as I have been doing ever since I left Tech.

This is the Headquarters of the Service of Supplies for all of our army in France. A new department was about to be created, the "Department of Buildings and Grounds," and I was given charge of it.

A couple of weeks ago I made a trip to the British front to study their system and found they had a personnel of over five hundred in this service. So I have a nice job ahead of me to organize this service before our boys come over in large numbers. This is the most beautiful city in France outside of Paris.

There are over eight hundred officers here now and more coming every day. Jerry Campbell of '91 floated in the other day in charge of all the docks in France.

To house these officers was quite a problem, as the hotels couldn't hold them, so the general, thinking I had nothing to do, made me billeting officer. I called in the mayor and the representative of the French army and made up a committee of

three, one from each branch. The mayor wrote to the people of the town, published a call in the newspapers, gave me an office in the Hotel de Ville and the rooms began to pour in. Then I got hold of the Count de Portallais and had him get up a committee of the well-known men and women in town and now I have over two thousand rooms to choose from. It has become the proper social stunt to have an American officer in your house; can't do without 'im. I established myself in the home of the Countess de Rigny, the most beautiful in town. Of course, I mean the house.

Every Sunday the Countess gives a dinner, to which I am requested to invite my friends, and as her cellars are noted and the wild boar or the stag has been soaked for fifteen days in white wine to give it the proper taste, the dinners are a great success.

Truly this is a hard life. The government supplies beautiful saddle horses and darkies to bring them to your door, and we ride every morning or afternoon.

But the office hours are from eight-thirty to six and we work as hard as we know how, and the horses are so that we can keep in condition.

I have just taken over the biggest hotel in town and am turning it into an officers' club, with fifty bedrooms, large dining room, card rooms, library, billiard room, etc. When we get it going it will give a place for all the officers passing through to stay and get acquainted with those here.

Of the front and the battles we know, perhaps, less than you do. The whole atmosphere is very tense and we hope and pray the English and French can hold out until our millions arrive. It is going to be a close shave.

Yesterday we met the wife of the president of the Bank of France, the branch here. She told us of her only son, shot down in his aeroplane the other day, his face smashed almost out of human shape, but fixed up with silver wires so that he could use his jaw; had one leg left and could breathe. Madame de Rigny, who was with me, said, "My congratulations; you have given your best for France." The old lady dried her tears and proudly smiled. That is the spirit of the women over here.

Give my best wishes and remembrances to all the boys in the class. Yours most sincerely, (Signed) *Woodruff Leeming*.

Woody would enjoy himself anywhere—even where they don't bank the fire nights.

Ernest Tappan writes, in part, as follows:

I volunteered and was accepted for the Y. M. C. A. war work, and shipped to France on a steamer leaving the United States the first part of November last. There were a number in our party, including three ministers, but more Y. W. C. A. than Y. M. C. A. workers. Our voyage of nine days, after the first two, which were windy and rough, was quite mild. It was, happily, uneventful, although every precaution was taken, even to the prohibition of smoking on deck after dark. It was a beautiful day when we landed, as was the following one when we journeyed across a part of France to the metropolis. The next three weeks were spent there, going from one part of the city to another. We procured additional equipment, and also attended several conferences with the leaders who described different phases of the work, and who, on the whole, are an exceptionally fine set of men.

At the time, the need being relatively greater, I decided to enter the work for the poilus, undertaken by the American Y. M. C. A. at the request of and in coöperation with the French army. I was then sent eastward to regional headquarters in an important little city which has suffered more or less during the war. After lingering there for five days, I was finally assigned and dispatched to my present location, where I have remained ever since. It is a village out in the country on the bank of a small stream, and had, in 1914, one hundred and sixty civil populace. It boasts of two stores, three or four streets without sidewalks, one church (Catholic, of course), the communal building (this embraces "*le marie et l'école*"), the inn (or *café*, as it is called), "*le bureau du Major du cantonnement*," the barracks, and our foyer. I dress in the American uniform, with U. S. and Y. M. C. A. on either side of my collar. I live in a small room in the back part of the foyer and take my meals "*en famille*" at the *café*. I am the only American within five miles and very seldom

meet any one who understands English. We have decorated the foyer's interior with flags of the allied nations, large colored pictures of noted French scenery, and hung red curtains at the windows. The building is a large wooden one, shaped like an H. On one side is a hall for conferences, English classes, correspondence (we furnish free writing materials), reading (we have three hundred volumes in our library), and games (cards, dominoes, chess, backgammon, etc.). The other hall is for the canteen (where hot temperance drinks are served), the cinema, phonograph and concerts, or theatricals.

There are two directors in each foyer, one Frenchman and one American, the former having charge of everything except the canteen and the out-door sports, over which the latter has control. As a matter of fact, we generally consult together about most moves before making them.

Of course, our aim is to provide the poilus with an attractive, wholesome place for rest and recreation during their leisure hours when not on active duty. It is interesting to note how appreciative they are and how eager to enjoy any advantages we can offer them.

I have many chats with the men and made their acquaintance, some of them now being at the front. Since the Huns' offensive overture opened March 21, the whole world over here has been in motion, and I fear while it lasts we shall not have many clients nor for any length of time.

However, it is "*L'horrible guerre*," and we try to take it philosophically and make the most of our opportunity for helping in any way when it does come. It is said that one reason the Boches prefer to attack the English is because their troops are younger and less seasoned. I hardly understand how that can be so, however, as the French, both men and officers, some of them, seem almost boyish and certainly not very old to me.

Accept my best wishes for you and yours, and give my kindest regards to any of the goodly fellowship of M. I. T., '91, that you meet. Very truly yours, *Ernest S. Tappan*.

And Tappan, of course, is sure to make good. We all know Tappan.

Maj. George K. Hooper is in Washington and writes us a reunion letter, which follows:

1503 CONNECTICUT AVE., WASHINGTON, D. C.,
June 12, 1918.

My Dear Wilson:

I'm very sorry that this must be the only means available for getting in touch with the "crowd" this year, but being a part of our Uncle Samuel's forces and with a big job to swing, it must serve.

First, let me wish that the occasion may be as pleasurable as was the twentieth anniversary at Osterville — I shall never forget that and have many times wished that I could repeat it. The '91 friendships have always meant a great deal to me, and I feel a comfortable sense of rejuvenation whenever they are renewed. If it were permitted, I could tell you many interesting things about this work here. It is a stupendous program handled in a big way by great leaders and if there were nothing to it but the experience the time would be well spent. Tanks, tractors and trucks are my portion — we have over twelve hundred contracts and the cost runs into several hundred millions.

My first meeting with Tech men in the service has, happily, been with classmates, Herbert Kimball being here. We occasionally breakfast together and this morning Moore of Hartford passed with his well-known jaunty air and pleasant smile.

Do not allow the old influences of Marblehead to disturb your meeting. The chronicles say that it "was a Godless place and no minister of the Gospel was permitted to abide within it." I suppose that we will know more about this when the record of the meeting is published.

With warm regards for all and many regrets that I must miss the fun, Always cordially, *G. A. Hooper*.

Hooper seems to have fooled 'em all.

Billy Dart is now a director in the Rhode Island Hospital Trust Company of Providence.—Fred Blanchard is now vice-president of the Detroit Lubricator Company, in charge of engineering and manufacturing.—Hersam writes from sunny California and regrets the “long, long trail” to join us. He wants to come and fish for submarines.—Clarence Whitney is mixed up with labor; wants to work twenty-four hours a day. We mean wants *them* to work twenty-four hours a day.

R. L. Mahon writes from Port Huron, where he is treasurer of the Riverside Printing Company, that he wants to come to see us, but cannot. He is mixed up in “Drives” and says Port Huron and the whole middle west is on its toes to prosecute the war. Hooray for Michigan, Port Huron and Mahon.

Morris Knowles, who was a sanitary engineer at some of the cantonments, is now with the Emergency Fleet Corporation doing municipal engineering on housing work.

Stephen Coles (Captain Coles) has written a plant poem—a poem of the nitrate plant where he is hard at work. It follows and it has some of the pepper the nitrate plant will later on deliver.

A MESSAGE

FROM THE WORKMEN AT U. S. N. P. NO. 2, MUSCLE SHOALS, ALA., TO THEIR
FELLOW SOLDIERS IN FRANCE AND FLANDERS WITH GENERAL PERSHING,
MAY 25, 1918

You hold 'em, Buddy boy! We're with you heart and hand
In this yere scrap to save the world and freedom in our land.
We know just what you're up against, 'way out there in France,
But hold 'em, hold 'em, Buddy boy, till you git your final chance.
We've all chipped in our bit of cash this glorious Red Cross day
To help you git what's yours by right, if you're hurt while you're away.
We're hustlin' here both day an' night an' Sundays, too, you bet,
To get this plant agoin'—and we'll do it, don't you fret!
The hammer's rattlin' on the steel as the rivets are headed tight,
It's our machine gun volley in defense of human right.
Each nail we drive, each concrete mix an' all
The rest of what we do is our answer to the call.
We're comin' strong, you Buddy boy, we're comin' right as well;
We're fixin' here to send you stuff to give the Germans hell!
It won't be long now, Buddy boy, till you will hear from us,
We're workin' quiet-like an' calm with mighty little fuss.
But hold 'em, Buddy, hold 'em, till our work here is done,
An' you'll git a chance to do right smart again the beastly Hun.
For what this plant will send across to the Flanders battle line
Is what you need to finish up the dirty German swine.
“Ammonium Nitrate” is its name—an' it's all of that an' some—
An' it's exactly what you need to put the Kaiser on the bum.
So hold 'em, Buddy boy! We're with you heart an' hand
In this yere scrap to save the world and freedom in our land!

CAPT. STEPHEN L. COLES, *Ord. R. C.*
Inspector of Construction, U. S. N. P. No. 2.

1893

FREDERICK H. FAY, *Secretary*,
308 Boylston Street, Boston, Mass.

GEORGE B. GLIDDEN, *Assistant Secretary*,
551 Tremont Street, Boston, Mass.

No report received from the secretary.

From *The Tech* of May 15, 1918:

The Technology Committee on Shipyard Employment has announced that a total of nine hundred dollars in prizes has been offered to the Technology students who work in the shipyards during the summer vacation. This will undoubtedly cause a multitude of students who had been delaying to sign up immediately, for the prizes cover such a variety of things that every one has an equal chance. Not only are prizes offered for excellence in work, but also for working the minimum number of hours and days in a certain period of time, or in writing reports, making suggestions, telling of experiences, and, in short, keeping a diary.

The prizes were offered through Mr. A. F. Bemis, '93, chairman of the Corporation Visiting Committee of the Department of Naval Architecture and Marine Engineering, who has sent the following letter announcing the conditions of the contest.

MR. D. D. WAY,

Dear Sir: Whereas the work which Technology students will do this summer in shipyards will be a distinct contribution to the nation in carrying on the war, it should also materially contribute to the coöperation between the Institute and the industries in the training of the men.

In order to get for the Institute the greatest benefit from individual experience and with the probability of bringing out some helpful suggestions for better coöperative relations between the shipyards, I offer the following prizes, open for competition to all Technology undergraduates who work in the shipyards during six weeks or more of the coming vacation period, under the plan to be carried out by the Technology Committee on Shipyard Employment.

1. For general reports as suggested below.

First prize, \$100; second prize, \$90; third prize, \$80; fourth prize, \$70; fifth prize, \$60.

2. For the best work done by an undergraduate in a shipyard.

Five prizes of \$50 each. One to be awarded in each shipyard.

3. For the best suggestion for bringing about better coöperative relations between the Institute and the shipyards.

Five prizes of \$50 each.

In order to be considered for a prize in Group 1, a report must include the following:

1. A record of the student's work including:

(a) A description of the principal kinds of work or tasks performed.

(b) A statement of the total number of hours and days actually worked and the corresponding maximum number of hours possible during the period the student was employed at the yard.

(c) A statement of the total wages received.

(d) Descriptions of the student's most interesting or valuable experiences.

2. An outline of a plan for coöperation between the Institute and the shipbuilding industry in training men for work in the industry or otherwise fostering and maintaining its growth.

The award of prizes in Group 1 will be based on the relative excellence of the reports submitted, as determined by the judges, considering all three of the following elements equally important:

1. Statement of work done during the summer.

2. Outline of suggestion for coöperation.

3. Form of presentation of subject matter.

A winner of a prize in Group 1 (above) may be eligible for one in Group 2 also, but not for one in Group 3. Groups 2 and 3 are not to conflict with each other.

Details for the contest must be left for future determination and judges will be announced later, but my present suggestion is that the matter be referred to the Advisory Committee appointed a year ago by President MacLaurin to assist in the conduct of the course in Naval Architecture and Marine Engineering, of which Mr. George J. Baldwin, '77, vice-president of the American International Corporation, is chairman.

Very truly yours,

(Signed) A. F. BEMIS, '93.

1895

W. D. PARKER, *Secretary*, 12 Bosworth Street, Boston, Mass.

In Service

Azel Ames, Maj., N. Y., C. A. C., U. S. N. G.—D. E. Aultman, Maj., War Dept., Washington, D. C.—De W. Burkhalter, Capt., Co. D, 17th Ry. Engrs., Am. E. F.—Charles W. Bigelow, sent abroad by government, on wool situation.—John Boedeker, Lieut., U. S. R. C.—Thomas C. Clarke, Jr., Capt., Engr. Corps, U. S. R.—William B. Claffin, Capt., Co. B, 114th Engrs., E. O. R. C.—P. M. Churchill, Maj., 2d Batt., 304th Reg. Engrs., E. O. R. C., N. A.—Charles M. Gay, Capt., Engrs., U. S. R., Gen. Engr. Dept., Washington, D. C.—Parker H. Kemble, Inspr. Shipping, Marine Engrs.—Herman Kotzchmar, Jr., 1st Lieut., Engrs., C. A. C., U. S. N.—Charles L. Parmelee, Capt., E. O. R. C.—W. S. Rhodes, 1st Lieut., E. O. R. C.—W. Powell Robins, 1st Lieut., Adj. Genl.'s Off., 79th Div., Washington, D. C.—Harry J. Sheafe, Capt., E. O. R. C.—William B. Stork, Ensign, U. S. N.—Charles F. Tillinghast, Col., Coast Art., Fort Preble, R. I.—T. H. Wiggin, Capt., Engrs., France.—John C. Wolfe, Capt., E. O. R. C.—George S. Whiteside, Asst. Surg., Med. O. R. C.

A letter from Schmitz states that news from the New York district is very scarce.—John Gardner moved to Philadelphia some time ago.—Claffin, Captain of Engineers, is still at Camp Beauregard, and is working very hard.—Canfield and Donham have both been elected to the Board of Governors of the Technology Club of New York.—Schmitz, after serving ten years on the board and as an officer of the club, wished to retire but was not allowed to do so and was made chairman of the Membership Committee instead. The merit system evidently prevails in some New York elections, at all events, and '95 men will not be surprised to learn of the results in the instances just noted.

The following is taken from an article in *The Tech* of March 13, last:

Technology men will be interested to know that the firm of Fay ('93), Spofford ('93), and Thorndike ('95) will engineer the construction of the new army warehouse to be built in South Boston. This structure will have the largest floor space

of any building in the world. To be more definite, the floor area will amount to about sixty acres, which is the total acreage of the Boston Common and Public Gardens combined. One side of this mammoth structure is 2400 feet long and would reach from the Hotel Touraine on Boylston Street to the Parker House on School Street, while the width will equal the frontage of the Tremont Building on Tremont Street. Doubtless many other Technology men will be engaged to work on this warehouse, as a small army of engineers will be required in order to complete the building in the time demanded.

Wallace Brackett has been pushing the War Savings Stamp campaign in Boston as one of the section managers, having for his territory the district around Scollay Square and Beacon Hill near the State House. With the help of Harry Barrows and a few other patriots he has secured three thousand individual subscribers. A large measure of this result was secured through the organization of War Savings Stamp clubs in business houses located in the district.

The name of C. F. Tillinghast is the latest to be recorded as being in the service, although he enlisted some time ago. Tillinghast is a colonel in the Coast Artillery, and is stationed at Fort Preble, R. I.

C. H. Parker is superintendent of Generating Department, Edison Electric Company, and is located at the general offices of the company, 39 Boylston Street, Boston.

George Rockwell has recently been in Washington on important professional business.

Archer E. Wheeler, consulting engineer for the Union Miniere du Haut Katanga, has recently gone to their head office in London to submit alternative plans for the metallurgical treatment of a large body of oxidized ore occurring on their concession in the Belgian Congo near Elizabethville. His address is: Care of Robert Williams & Co., Friars House, New Broad Street, London, E. C., England.

Luther Conant, Jr., is with the National Industrial Conference Board, 15 Beacon Street, Boston, as chief investigator of the research staff of the board. This staff has been organized by Conant, and has for its object the scientific study of numerous industrial problems, such as the relation of hours of work to output and to health of workers, wage systems, mediation and conciliation problems, employment of women in industry, and other matters affecting the relations of labor and management. The board, of which Mr. Frederick P. Fish is chairman, is composed of two representatives from seventeen national associations of manufacturers and employers. It is a voluntary organization entirely of a private nature and has no connection with the federal or any state government. The work which this organization has done and is undertaking, as evidenced by recent reports, is of a most timely sort and should be of great value in the readjustment of industrial conditions incident to the war.

Change of Address

Sherman, John C., from 1784 Beacon Street, Brookline, to 17 Pleasant Avenue, Portland, Me.

Necrology

Nelson, Henry E., West Roxbury, Mass., died November 8, 1915.

Hatton, Charles F., Newton Center, Mass., died February 23, 1916.

Brown, Dr. Edw. M., Springfield, Mass., died October 22, 1917.

Turner, Horace K., Newton Center, Mass., died June 9, 1918.

1896

CHARLES E. LOCKE, *Secretary*, M. I. T., Cambridge, Mass.

J. ARNOLD ROCKWELL, *Assistant Secretary*,
24 Garden Street, Cambridge, Mass.

The secretary owes an apology to Burgess. In the April REVIEW was a statement that he had failed to come forward with an account of his trip and impressions in Europe. At the time the secretary hardly felt that Burgess was a slacker in this matter and later events prove that he had done his part and had sent a statement which was tucked away in a pamphlet and overlooked. It is not too late to publish his letter and it is, therefore, given in full as follows:

You are right in your inference that I enjoy the '96 news of THE TECHNOLOGY REVIEW, which I always read with great interest. You ask me for some of the impressions of my recent trip abroad. You will find a very much better account than I could give by Prof. Joseph Ames, our chairman, in the February *Atlantic*. I also have published a brief statement in the *Scientific Monthly* for October, 1917, a copy of which is enclosed.

There were eight of us in the party, including the wives of two of us, and we sailed on the first boat after the declaration of war by the United States. We did not know until we landed that we had been on the water during the peak of the most active submarine period, some forty-odd ships being caught that week. We were very lucky in not having any adventures in the trip over.

It is putting it very mild to say that we were cordially received in both France and England. The most embarrassing thing was to find time in the twenty-four hours of each day of the three months to keep our varied and numerous engagements. Our mission was sent by the National Research Council, the main object being to find out all we could about the scientific basis of warfare and the use and organization of scientific men and agencies. We had some thousand questions from the various military bureaus to which we obtained at least a thousand and one answers. When I look back to last April at our ignorance of the innumerable scientific aspects of warfare, it now seems appalling. The "our" refers not only to civilians, but also our military officers.

The day after we reached Paris we met with a specially appointed departmental committee of the French government and in about an hour's time arranged the programme of visits which kept every minute of our time occupied during our stay in France. We were shown in greatest possible detail all the scientific and technical service in Paris, then spent a week at the French front and several days at the British front, and several weeks in England.

The most impressive place we visited was Verdun and Fort Douaumont. One can form no conception of the absolute desolation caused by modern artillery fire unless he has actually witnessed it. One gets the impression (an incorrect one) that this desert is absolutely deserted when as a matter of fact there are thousands of men, for the most part underground, in the area visible at any instant. We had our baptism of German shell fire at Douaumont and also were in several aerial bombardments, including Chalons, Folkstone and London.

In contrast to the almost dead appearance of the Verdun region was the sector behind the lines of the British army before Messine Ridge, which region we visited several days before the attack. Here troops, artillery trains and wagons of all kinds were so numerous and crowded that there was a military policeman at every cross-road for ten or fifteen miles back of the lines. These vast numbers of men and quantities of munitions and other supplies were moving in perfect order, absolutely no confusion and every man and horse looked fit.

In our numerous visits to the various technical services at the French and British fronts we were greatly impressed with the cheerful confidence of officers and men, and in particular the officers of the technical branches without exception had a wonderful command of their subjects. It was the usual practice at the French front for the officer in charge to give us a lecture on his particular service and then we were taken and shown the actual apparatus in use at the front. We have accumulated a fund of information and experience and have acquired numerous documents and confidential reports, all of which have been placed at the disposal of the interested American authorities.

The most inspiring sight I ever witnessed was the reception given General Pershing's troops by the population of Paris. Nothing could have exceeded the enthusiasm with which this little advance guard was acclaimed in its march through the city on that most memorable Fourth of July.

I was, of course, very much interested in all questions of metallurgy and as a guest of the French government had an opportunity of visiting many of the steel plants, including the metallurgical hydro-electric establishments in the French Alps. All these plants have undergone great extension during the war and many improvements have been made.

It is most interesting to see how the railroad trains are all packed with soldiers who make up ninety per cent of the travelers, and there are in addition many military trains. The young men are traveling in Europe as they never did before.

Returning to this country in July, the contrast was very sharp between the war status in England and France and conditions in this country. Speaking generally, our people do not yet have any conception of the conditions imposed on European populations by the present war. It is no exaggeration to say that every person without exception is engaged in some form of military or accessory operation. The Allies expect great things from America. The country will have to learn to save and spell efficiency, economy and earnestness in capitals.

This war is an enormous many-sided engineering project and the engineers of this country can easily acquire first place in the execution of this tremendous undertaking, but we must quit being provincial and acquire the broadest possible viewpoint.

This great war has had the effect of bringing out some wonderful things in literature. I think we have all been impressed by what we have read from the French writers, who have analyzed the mental, moral and religious effects of the war. Along the scientific side the article by Burgess in the *Scientific Monthly* for October, 1917, on the "Applications of Science to Warfare in France," is a valuable article showing what a part science plays in the war and how the war may have some value in advancing science.

Not much additional information has come in from the men who are in war work.

Bradley Stoughton has lost his membership on the Committee on General Engineering of the Council of National Defense, since that committee is no longer in existence, but he more than makes

up for it in being secretary of the Division of Engineering of the National Research Council, and chairman of the Section on Metallurgy of the National Research Council. This work takes him to Washington about two days per week. He seems to be able to carry this load satisfactorily in addition to his duties as secretary of the A. I. M. E.

Frank Guptill left early in the year for Camp Lee, Virginia, where, after several weeks at the Engineers Officers' Training Camp, he was made a captain and assigned to the 34th Engineers at Fort Benjamin Harrison, Indianapolis, Ind.

Rockwell, after a long wait, finally received his commission as major, and started for Camp Dix. The following is taken from *The Tech* of April 27:

Dr. J. Arnold Rockwell, '96, left last Saturday for Camp Dix to assume the duties of medical director of Base Hospital 44. He has been commissioned a major. Dr. Rockwell, who has been practicing in Cambridge for the past sixteen years, was appointed to the position last August, but has just been called for duty. Before coming to Cambridge, he was assistant surgeon at Dr. Boothby's private hospital, Boston.

He was graduated from Technology in 1896, having completed the course in biology and public health. While at the Institute he was very prominent in athletics, and was a member of both the football and the track team. He established a record in the 440-yard dash, which was not broken for eighteen years. Lately, he has been medical advisor at Technology, and has been prominent in many other Institute affairs. Beside other positions, he was chairman of the Committee on Athletics, and a member of the Walker Memorial Committee.

Dr. Rockwell expects to leave with his unit for France in the near future.

E. C. Hultman has been doing some "very near" war work, having made trips to Washington in connection with construction work under the Quartermaster's Department, but Hultman has not received any definite commission. His services with the West End Street Railroad Company, which have been of long standing, have recently been recognized and he has been honored by advancement to the Board of Directors and to membership in the executive committee of the West End Company.

McAlpine has been doing things on the Ohio River as evidenced by the following article from the Lawrence, Mass., *Evening Tribune* of April 27:

Local friends of William H. McAlpine, formerly of this city, will be pleased to hear of his success in his career as an engineer in the following item from a Louisville, Ky., paper:

"W. H. McAlpine, for five years assistant district engineer of the Louisville district, has been made district engineer to succeed Col. W. P. Stokely, who has been transferred. As district engineer, William McAlpine will have charge of the Ohio River from Madison to Cairo, the Green, Barren and Wabash Rivers. This includes the extensive work on the falls and in the canal as well as the improvements elsewhere on the Ohio in the limits given and on the other rivers mentioned. The change was effective April 23.

"Mr. McAlpine is son of ex-Senator W. T. McAlpine and is well known in his native city. He was educated at local public and high schools and graduated from Technology in 1896. He was a member of Lawrence Canoe Club and a skilled paddler, winning many prizes."

Litchfield is continuing his great success in the Goodyear Organization. In the Wingfoot Clan of May 4, he has given his ideas on the relations between capital, labor and consumer. Litchfield has also just received the honor of election as a term member to the Corporation of M. I. T. He is the first '96 man to receive this honor.

The death of Horace K. Turner, who was here in Course IV, from '92 to '94, occurred on June 11, 1918. He was officially ranked as a '95 man, but was well known by, and did work with, members of '96. He has lived almost exclusively around Boston and engaged in the business of art publishing.

New address has been received for M. L. Fuller, who is temporarily on oil investigation in Texas, and may be reached at Box 39, Mineral Wells, Tex.

Mrs. Paul Gibson Burton is now at 839 University Parkway, Baltimore, Md.

We have lost John E. Lonngren, whose last address was Bellville, N. J. If any classmate can supply the secretary with a clue as to Lonngren's present whereabouts, the secretary will be very glad to receive it.

1897

JOHN A. COLLINS, JR., *Secretary*,
67 Thorndyke Street, Lawrence, Mass.

Henry D. Jackson, VI, formerly of Sprague & Jackson, Consulting Engineers, at 88 Broad Street, Boston, has joined the organization of Monks & Johnson, Engineers and Architects, of 78 Devonshire Street, Boston, as power engineer. He will take charge of their power plant and heating work.

Charles F. Richmond, I, died in July, 1917, according to advices just received from an official of the Douglas Shoe Company of Brockton, Mass.

According to a recent item in the *Boston Transcript*, W. C. Potter, III, has been appointed by President Wilson to be in charge of the production of air planes. Potter is a member of the firm of Guggenheim Brothers of New York City.

In a letter recently received from E. P. Osgood, XI, he writes of attempting to get two 80-acre units of land entirely under water this spring, over 100 acres being in grain. Osgood is located at Fallon, Nev., and is with the United States Reclamation Service. At the time of writing the letter, April 6, he states that his brother, H. D. Osgood, was on his way to France.

The secretary was pleased to receive a letter from Lincoln Crocker enclosing a substantial subscription to the '97 War Fund. Crocker is in Santiago, Chile, with the International Machinery Corporation.

1898

A. A. BLANCHARD, *Secretary*, M. I. T., Cambridge, Mass.

On April 12 the following members of the class met at dinner at the City Club: Barker, Humphrey, Blanchard, Bragg, Perley, Chapin, Wesson, Hopkins, Davison, Goodrich, Peavey, Russ, Scott. The matter of observing our twentieth anniversary was discussed. It was taken for granted at the outset that on account of war conditions no elaborate reunion would be attempted, but it did seem desirable to get together as many classmates as possible at a simple dinner in order to take stock of what the class is doing to win the war. No graduating exercises were held this year at the Institute, most of the Senior class having already gone to engage in war activities of one sort or another, and all diplomas were delivered by mail. There seemed to be no particular occasion, then, to have our class meeting in Boston, since there has been nothing this spring to attract Technology men generally here. It seemed more appropriate to have any gathering take place at a more central place,—New York or Washington,—if at all. On further conference, however, particularly with some of the active New York members of the class, it seemed best to postpone altogether any meeting of the class until a more auspicious time. The suggestion was made that every member who would have gone to a good, old-time reunion, such as Ernest Russ engineered on our fifteenth year, should take that money and dedicate it to a class fund. Such a fund could go to buy a Liberty Bond to help the country now. Later—perhaps at our twenty-fifth celebration—the bond could be redeemed and furnish the nucleus of an appropriate gift by the class to its alma mater.

Since the list of '98 men in the national service appeared in the last issue of the Class Notes in the REVIEW, more names are to be added:

Milan V. Ayres was commissioned major, national army, on May 27, and assigned to the statistics branch, general staff, Washington.

Roger W. Babson is chief of the Information and Educational Service, of the Department of Labor.

Clarence Goldsmith writes, "Have been in Washington since May, 1917, planning water supplies and fire protection for all emergency construction in the United States."

Lester Gardner is now Captain Gardner as we see from the *Editor and Publisher*:

Capt. Lester D. Gardner, Signal Corps, U. S. A., is the way the former president of the Gardner, Moffat Company, publishers of *Aviation* and *Aeronautical Engineering*, *The Air Service Journal*, and *The Rubber Age and Tire News*, is now known. Captain Gardner is well known in newspaper circles, having been with the *Chicago Journal*, *New York Times*, *New York Sun*, and the *New York Evening Mail*. He received his commission in August and has been in active service since September.

His knowledge of aviation as well as his experience as an organizer, will find ample scope in the aviation section of the Signal Corps, to which he is attached.

Captain Gardner has had a wide experience in the publishing business. After graduating from the Massachusetts Institute of Technology in 1898 he spent a year in Chicago with the *Chicago Journal*. In 1900 he came to New York to take a year's course in administrative law at Columbia University. For the next ten years he was with New York newspapers in business departments. Like other newspaper men, Captain Gardner heard the call of the magazines, and spent two years with *Collier's* and *Everybody's*. The American Lithographic Company needed a man to launch a new process of rotogravure, and Captain Gardner was named. Later he originated the educational organization known as the Mentor Association, which publishes the *Mentor*. For several years Captain Gardner was director of the Association.

In 1916 he formed a partnership with Wm. D. Moffat, of Moffat, Yard & Co., book publishers, and commenced publishing trade magazines as the Gardner, Moffat Company.

Capt. Fred B. Dawes is in Washington, regimental supply officer of the Searchlight and Anti-Aircraft Regiment.

Winslow writes from New Haven:

I am on two committees for the Council of National Defense and on the Public Health Council of the State, and am just finishing some experiments on sewage disposal for the city of New Haven and just beginning a study of sanitary conditions in the factories making munitions for the government.

Major Joseph C. Riley is very busy in France with airplane motors.

John Wiley & Sons' latest bulletin announces a new edition of the notable book of 382 pages by Major-General Erasmus M. Weaver, entitled "Notes on Military Explosives."

We have at hand a reprint of a paper read by Charles S. Hurter at a meeting of the Lake Superior Mining Institute on Blasting Explosives and their Accessories.

Every one of the class will feel the greatest sorrow and a strong sense of personal loss in learning of the death of Howard L. Coburn. He died in New York on June 19 after a brief illness with acute pneumonia.

Coburn was loved not only by members of his own class but by all Institute men with whom he ever came in contact, and there were extremely few Institute men with whom he was not acquainted. Particularly members of recent classes will keenly feel his loss, for he had served them in many advisory capacities with a very remarkable sympathy and tact.

1899

W. M. CORSE, *Secretary*, 106 Morris Avenue, Buffalo, N. Y.

BENJAMIN S. HINCKLEY, *Assistant Secretary*,
F and 17th Streets, Washington, D. C.

The secretary is in receipt of a letter from Jacob Stone, Jr., first lieutenant, Engineers Reserve Corps, 33d Engineers, Camp Devens, Ayer, Mass. Stone states that he has had his first lieutenant's commission since last August. He attended the second Officers'

Training Camp at Fort Leavenworth. Stone has been at Camp Logan, Houston, Tex., and at Camp Devens, Ayer, Mass. He says there are a number of Tech men in his regiment and that they are a fine bunch of fellows.

The secretary received a letter from Warren A. Priest from Springfield, Mass. Priest reports that he has seen Mork, Charles Corbett and Doc Skinner in Boston once in a while, but beyond these men, has not met many of the class.

Haven Sawyer announces his marriage to Mrs. Lorena Fellows Hight, on March 25, 1918.

Capt. James Henri Walton announces his marriage to Dorothy Dana, on April 20, 1918, as follows:

A message received from Columbus, Ohio, today told of the wedding there Saturday of Miss Dorothy Dana to Capt. James H. Walton of the United States Medical Corps and a former resident.

Captain Walton is on a leave of absence from the University of Wisconsin, where he is associate professor of chemistry. Miss Dana is an honor student at the University and comes from Muskegon, Mich. Her brother, Lieutenant Dana of the Medical Corps, was married at the same time. Captain and Mrs. Walton will return to Washington, where the former is connected with poison gas defense work.

The secretary is in receipt of a letter from Mrs. Jerome Paul Jackson stating that her husband is a captain in the E. O. R. C. and has been overseas since last November. Jackson is in charge of the remodeling and enlarging of an old monastery for the use of our army as one of the large base hospitals. Mrs. Jackson says that the tone of his letters is fine and he is most enthusiastic over the accomplishments of the Americans in France and the quality of our men over there.

B. R. Rickards writes:

Last October I became connected with the New York State Department of Health, with the title of Assistant to the Deputy Commissioner. In addition to routine administrative work, I am also the editor of two regular publications of this department: *The Health News* and the *Official Bulletin*. I am also in charge of the public health educational work of the department. Among other duties, I have to keep in touch with the courses for health officers given by four of the universities of the state, of which the University of Buffalo is one.

W. Scott Matheson, who has been acting as manager of the Westerman Iron Works for the past four years, retains his interest in the business and continues in the same capacity, under the new arrangement whereby the works become the property of Cecil H. Bacon, continuing under the same name and policy as formerly.

Members of the class of '99 who attended the last class reunion, which was held at Rexham, Mass., will remember the beautiful summer home which was so kindly tendered us by Benjamin Hinckley. In the spring of this year a forest fire was started by a spark from a locomotive almost three miles from Hinckley's, which spread so rapidly that the cottage was entirely destroyed. Fortunately, Miles Sherrill's house was saved, but the lodge and villa adjacent were burned.

Letter from A. W. McCrea to Mrs. McCrea, from France:

Friday, April 5, 1918.

I have been working this evening. I did not leave the barracks until eleven o'clock which was a half-hour after taps and I began to wonder if the guard would let me out, not having a night pass for the town. This is necessary if one stays out after ten o'clock; that is, necessary if an M. P. spots you. The M. P.'s are military police and they are in every town, even up to the trenches. One of their duties is to see that every one is dressed properly; one must not have a button open in any part of his raiment. Their duty near the front is to see that every one has his gas mask in the appropriate position relative to his proximity to the front-line trenches.

Every one in the United States has heard of that good old Irishman, Patrick Walsh, the first man to win the D. S. O. and who also afterward went to Croix De Guerre. The man that sits next to me at breakfast told me this morning that he had called at his office about six weeks ago to see him in reference to his transfer back to the United States. It seems that his commanding officer had recommended that he be returned to the United States, as he had long since been incapacitated for active service. This recommendation was written by his commanding officer in the most kindly terms. The man was highly commended, but because of age, etc., it was thought he could render better service on the other side as a drill sergeant or in some other capacity in which, doubtless, his commanding officer used good judgment. With tears in his eyes he told the man his story.

Today, in the large forecourt of our barracks, I witnessed for a few minutes from the window of our office a little ceremony in the parade ground. This parade ground is a large square enclosed on three sides with trees. What I saw was simply the guard mount. The soldiers were marines. Then there was a band and drum corps, but the thing which sent a thrill through me was the way their lieutenant inspected the guns. It was about the peachiest thing I have ever seen. I thought to myself, some efficiency there. It just made me feel good the rest of the day.

I suppose the United States is just about holding its breath these days while the Germans are trying to break between the French and British at Amiens. They are making a wonderful fight. Of course, we see many of the French soldiers more than the British. The only British we see are officers and their orderlies. The French are truly wonderful, and they have some real battle songs. I don't understand them myself and I have only heard them two or three times, but two nights ago two of them, shortly after midnight, marched through this street, I suppose on their way to the train, and they were chanting one of those pieces. I was only half awake, but enough to sense a certain feeling of awfulness. I cannot describe it. It was a song of battle and it was terrible, and it was also thrilling.

Since my last letter I have been taken down to headquarters. I am continuing in the work of the design of bridges, methods of getting across busted canals and that sort of thing. When I say "busted canals" you will readily imagine what may happen to a surrounding country when a canal is blown up, especially where, as so often happens, the canal is elevated many feet above the adjacent territory.

We have just about completed our work for the first book. It is all very interesting work, the more so because of the fact that it is for publication and it will illustrate just the work one has been doing; it will prove at last that I have been in the game.

My high boots are about the best investment I made in Washington. They cost about \$35 here. The patent soles wear the best ever and the uppers are as good as new. Most every one here wears leather puttees, mainly for the reason they had them and do not care to go to the expense of purchasing high boots, but they are not so comfortable.

Got back to my room at eight o'clock, had a fire built in the grate, which sizzled for about two hours because the wood was green, and wrote to mother; I also made some hot chocolate. We buy at the commissary two cakes of Baker's unsweetened chocolate, 32 cents, and sugar, 7 cents a pound, so we can have hot chocolate without great cost. Doesn't this sound terribly exciting?

[I do a great deal of reading, though, which is involved in the work here now or

in the immediate future. I have not done any light reading for some time. I have been trying to buy a *Saturday Evening Post*, without success.

My superior officer was up in the Cambrai sector the first two or three days of the drive and he says it doesn't worry him if they take Paris, that the British have an unbeatable army, the finest trained army in the world. The American certainly has a great respect for the British. He saw a "Tommy" along the road, his right arm shot off, bandages covered with blood and dirt, and altogether in a most deplorable condition. Had lost all his equipment and was just able to walk. Under his left arm he carried a small dog.

News was received in Salt Lake yesterday of the death in Paris of Charles Snead McDonald, prominent architect of this city and member of the United States Commission for Civilian Relief in France. Mr. McDonald left Salt Lake March 8 and sailed from New York March 14. He died April 14, according to a cablegram received yesterday by his fiancée, Miss Gertrude McGrath, and was buried in the American military cemetery at Surenne, April 17. News of his illness was first received Sunday, but no intimation has yet been forwarded as to the cause of death. A cablegram to Miss McGrath simply read: "Succumbed to disease."

Charles S. McDonald was the son of Fanny Snead and Allan Lane McDonald. He was born in Louisville, Ky., February 19, 1879. He was the grandson of Charles Scott Snead of Louisville and of Angus William McDonald of Virginia.

Graduating from the Louisville schools, Mr. McDonald entered the Massachusetts Institute of Technology with the class of 1899 and upon graduation went to Utah. For a time he was associated in the firm of McDonald & Cooper, which firm were architects for the Keith-O'Brien building, and associated with Eames & Young in the construction of the Walker Bank Building. More recently Mr. McDonald had his offices in the Brooks Arcade. He was especially interested in fireproof construction.

He was a member of the Salt Lake Commercial Club, the Salt Lake Tennis Club and of the Intermountain Technology Association. His work in France was to be direction of the task of rehabilitating and reconstructing the towns and villages behind the French fighting lines.

Mr. McDonald left here the 8th of March for France. He could not pass the physical examination for the line on account of a stiff knee caused by an attack of rheumatism two years ago, so he accepted an appointment to do civilian relief and reconstruction work in the devastated regions of France. He arrived in Paris March 25 in good health and the cause of his death is not yet known. The other clippings I am sending to show you that Mr. McDonald was considered an authority here in certain lines of his profession. Just before he went away he had had plans accepted for two more schools of the same construction.

1900

INGERSOLL BOWDITCH, *Secretary*,
111 Devonshire Street, Boston, Mass.

In one of the former class letters it was reported that George Gibbs had been given a commission as chaplain in one of the western regiments, but fortunately for the Tech men who are in France, this report was not founded on fact. The following quotations, taken from letters published in *The Tech*, will give the class an idea what the men who have the opportunity of visiting the Technology Bureau of the American University Union in Paris, think of Gibbs.

I want to take the earliest opportunity on my return to America to tell you that Mr. Gibbs has proven to be an excellent choice for the director of the Technology Bureau. He puts a lot of personal interest and enthusiasm into his work, and the Technology Bureau is one of the most active places in the Union. The policy he has started of serving coffee there after dinner in the evening has aided in making the Tech Bureau an especially nice place to go in the evenings. I do not think that you could have made a better choice.

He mixes into things fine and has added fresh laurels to the Tech Bureau by his cordiality to all comers. He bought a coffee percolator and now holds a little after-dinner reception there with real United States coffee. You should see the crowds gather. All the Bureaus try to get in on it now. One Sunday after dinner it looked certainly like the mob scene from "Julius Caesar." Everybody apparently was there that was in the Union and they were settling the war vocally. It all helps, however, to spread the "rep" of the Tech Bureau and increase the envy of our associates. Really, it is rather a common expression over here now to hear from a man, "Gee, I wish I had graduated from a real place like Tech, which has such a wonderful Bureau for its men." And again, "They have a real representative, too. Not some old mossback retired college professor, but a real guy, an honest-to-God guy, even if he is a minister." (I hope you will pardon the coarseness of the expressions, but they are true.)

In a letter to Mr. Rollins, Gibbs writes as follows:

I have purchased for the Bureau the necessary things, including a percolator coffee pot and sugar, also condensed milk, with which we may have coffee up here after lunch or dinner. This has proved wholesome and homelike, and as the weather has been very damp, we have been obliged to have open wood fires in the Bureau and this adds to the cheer.

George Glidden, speaking at the last meeting of the Alumni Council of his experiences in France, which he visited in behalf of the Liberty Loan Committee, stated that he reached the Union early one morning and ran across Gibbs clad in a bathrobe and was greeted with great cordiality. Without waiting to get dressed, Gibbs hunted up his mail and made him feel very much at home. He did not know until one of the fellows told him, that Gibbs was a minister.

Albert S. Merrill, 1st Lieutenant, Ordnance Reserve Corps, has been in Toronto, Canada, as army inspector of ordnance, and writes in the most correct army form as follows:

Will say I have been here nearly three months without laying eyes on another class of 1900 man. Now what do you think of that?

This was in reply for the news about himself.

Neall's secretary writes as follows:

Mr. Neall wishes me to advise you that he has been appointed major, Quartermaster's, National Army, Construction Division. He expects to be located at Washington, D. C., and will take up his new duties there on April 11. Mail addressed to him, care of Hotel Logan, Iowa Circle, will reach him until further notice.

Neall had charge of the electrical work at Camp Devens before he received his commission. The *Electrical World*, in a notice about Neall, made the following statement:

Mr. Neall has been considered one of the best authorities on lightning protective equipment, and while with the Westinghouse Company was associated to a considerable extent with Alexander J. Wurts, who was an authority on and inventor of lightning protective devices.

The following notice of Clif Leonard is taken from the *Economist*, which he kindly sent to the secretary:

Clifford Milton Leonard, who has been nominated by the President for membership on the Board of Directors of the War Finance Corporation, to fill the vacancy caused by the resignation of Allen B. Forbes of New York, is one of the most prominent builders in the country, and is particularly well known in Chicago, where he has constructed buildings running into millions of dollars. His appointment is for a term of two years.

This account gives a little of Leonard's life history and among the companies of which he is an officer is the La Compania Constructora Leonard de Santo Domingo, Mexico and Spanish America. With this company and another in Canada Leonard is equipped to do work in most any part of the western continent.

Ralph Stevens called on the secretary a few weeks ago and informed him that he had given up his farm in Sterling, Mass., and was looking around for a chance to make himself useful to the government. So many farms had been taken by the government near Sterling that the demand for farms which probably would not be taken had increased and he was able to sell out at an advantageous price. He has applied for work along his old lines as a mining engineer and the last heard from him was that he had a very good job in sight.

The War Service Auxiliary has called the class secretaries' attention to the need which may arise for temporary help and advice among the families of the alumni who are out of the country and suggests that committees be formed to render what help is necessary. Perhaps the members of the class will appoint themselves a committee of one to help in this matter and if they do not feel competent to handle the situation will ask another classmate or a friend to assist them. Sometimes a very little assistance may be of great benefit to a person in difficulty.

The Technology Workroom in the Rogers Building will be in great need of workers this summer to take the place of the regular workers who are away. It has been suggested that the wives of the alumni who are staying near Boston this summer volunteer to

assist in this work. A great deal of work is being done for the men in the service abroad and it must be kept up in the summer as well as in the winter. Mrs. William T. Sedgwick or Mrs. A. J. George will be very glad to explain to any lady wishing to assist, what she will be called upon to do. Letters from men who have received bundles put up in the Technology Workroom show how greatly they appreciate what is being done for their comfort and welfare.

Arthur W. Geiger is in Co. D, 30th Engrs., Fort Myer, Va.—John H. Larrabee, U. S. N., is at the Navy Building, Washington.—James W. Hussey is a lieutenant, Naval Aviation, or ensign, U. S. N. R.

Changes of Address

Rev. George Crocker Gibbs, Royal Palace Hotel, 8 Rue de Richelieu, Paris, France.—Edward H. Davis, P. O. Drawer 1217, Waterbury, Conn. (after June 30); Purdue University, Lafayette, Ind., or 304 Russell Street, West Lafayette, Ind., present address.—Mr. Paul H. Delano, North Plymouth, Mass.—Mr. Arthur W. Geiger, Co. D, 30th Engineers, American Expeditionary Forces.—Mr. Harrington Learnard, 226 Devonshire Street, Boston, Mass.—Lieut. Albert C. Merrill, 232 Jarvis Street, Toronto, Ontario.—Mr. Herbert R. Stearns, 101 Nehoiden Road, Waban, Mass.

1901

ROBERT L. WILLIAMS, *Secretary*,
107 Waban Hill Road North, Chestnut Hill, Mass.

Tuesday, June 11, the class had a luncheon at the Boston City Club, with Professor Miller as our guest. He gave us a most interesting talk on Technology's part in the war activities. A vote of thanks was given him and the wish expressed that we might see him oftener. The following men were present: Boyd, Brigham, Appleton, McGann, Daloz, Whittemore, L. D. Chandler, Allen, Taft, Healey, Holmes, Hall, Seaver and Williams.

After the luncheon several visited the Institute to watch a special drill and dress parade of the aviation schools.

Ellis F. Lawrence writes from Portland, Ore.:

When do you hold meetings of the old class? I was elected director of the American Institute of Architects at the recent convention in Philadelphia and so will make four or five trips a year to the East. If by any chance you should happen to be having a reunion while I am in the East, I would make the effort to run up to Boston to say "Hello."

I had my first glimpse of Boston for nine years a few weeks ago, but was in town for only a few hours—just long enough to look through the architectural department and take a hurried walk through the new buildings. It seemed good to get back and meet the old professors. I only wish I had had time to look you up. It is fine to see the names of such a number of '01 men in the service. I envy them.

V. E. Lacy is chief engineer of James Cunningham, Son & Co., manufacturers of motor cars and motor trucks. He is located in

Rochester, N. Y.—O. S. Stockman is general manager of the Armstrong Cork and Insulation Company, Bellevue, Pa.—G. E. Marsh is assistant professor of electrical engineering, Armour Institute of Technology, Chicago. He is carrying on research work and is a Fellow in the Geological Department of the University.

Changes of Address

Francis K. Baxter, 2430 Lake Street, San Francisco, Cal.—Harry L. Grant, Western Electric Company, 195 Broadway, New York, N. Y.—Theodore F. Lange, Room 39, care Lummel Engineering Company, Charleston, W. Va.

1902

FREDERICK H. HUNTER, *Secretary*, Box 11, West Roxbury, Mass.

J. ALBERT ROBINSON, *Assistant Secretary*,
203 Washington Street, Canton, Mass.

A class outing was held from Boston on Saturday, May 25. The start was made from the Engineers Club at 2.30, Walker, Sherman, Nelson and Whitney providing the cars, and Fisher, Robinson, Stillings, Hall, Burt Philbrick, Collier, Hamblet, Ames and Hunter serving as passengers. A run was made to the Black and White Club at Marlboro. Walter Fitch was picked up on the road and Ralph Thurston was found at the club, having motored up from Putnam, Conn., and got there first. Les Millar arrived shortly after the main group.

Baseball teams were chosen with Millar and Walker as captains; Sherman, Ames, Stillings, Collier, Philbrick, Nickerson and Hunter assisting Millar; and Hall, Whitney, Hamblet, Thurston, Robinson, Fisher and Nelson rallying under Walker's banner. Fitch, who had an injured hand, was chosen umpire and added to the diversity of the occasion with his weird rulings. Millar's team got away to a flying start, making nine runs in the first two innings before their opponents got started. After that, things ran pretty even until the last inning, when with a score of 14 to 7 against them, Walker's team made a counter attack and brought the game to a climax with a score of 14 to 13, bases full and two out. A long fly by Thurston was captured by Collier after a hard run, thus ending the game. The crowd adjourned to the clubhouse where all bets were paid. Jimmie Smith arrived in time to see the end of the game, and Charles Boardman drove up a little later.

Dinner was served in the clubhouse and a pleasant evening followed. During the dinner a brief business session was held and officers were re-elected, and the nominations of Mathesius as vice-president for New York, and Lockett for Chicago were confirmed.

War has brought a number of changes. Those that have been reported to the class secretary are as follows: Stillings is with the Civilian Personnel Section of the Ordnance Bureau of the War Department located at their Boston office, 19 Portland Street.—Boardman is inspector for the Emergency Fleet Corporation and has to visit a number of plants in eastern Massachusetts where there is equipment under construction for the new ships.—E. E. Nelson is located in Pawtucket, R. I., with the Blackstone Valley Electric Co.—Rob Whitney has advanced to the position of president and general manager of the Whitney Machine Company, Winchester, Mass.—Seabury is in Washington at the United Service Club. The class secretary has not yet learned with what department of the government service he is connected.—Patch is with the Emergency Fleet Corporation which has recently shifted its headquarters from Washington to Philadelphia. He is director of schedules for the Production Division. He advises us that the title sounds well and all he knows about the duties is that there is a heap of work.—Archie Gardner is also with the E. F. C. in the Steel Construction Division.—Patch is located at 140 North Broad Street. Preferable mail address is at his provisional residence, 1816 Berks Street, Philadelphia, Pa.—Walton Sears is in Washington and is in charge of the Material Department for the new \$6,000,000 army and navy office buildings.—Dick Reed is at present located in San Francisco, his address being P. O. Box 951, San Francisco, Cal.—Alsberg has hung out his shingle as consulting engineer with offices in the Tribune Building, 7 South Dearborn Street, Chicago. He announces that he is prepared to make investigations and reports on mechanical, industrial and chemical engineering problems, to design plants and supervise their installation. From his experience in various manufacturing lines, he ought to be well fitted to make good in his new venture.

Finneran is receiving congratulations on the birth of a daughter, Eleanor, on May 30. This gives Tom a family of five children living, three girls and two boys. Whittet and the class secretary make up with Finneran the '02 delegation in this neck of the woods and all join in recommending the salubriousness of the climate. For further particulars, the eager reader should refer back to the April number of the REVIEW.

1903

MYRON H. CLARK, *Secretary*,
1790 Broadway, New York, N. Y.

R. H. NUTTER, *Assistant Secretary*, Box 272, Lynn, Mass.

The following clipping from the *Electric Railway Journal* relative to our classmate J. W. Welsh we think will be interesting to all of the class:

J. W. Welsh, electrical engineer and traffic agent of the Pittsburgh (Pa.) Railways, has been called to Washington, D. C., by A. Merritt Taylor, manager of passenger transportation of the Emergency Fleet Corporation of the United States Shipping Board. Mr. Welsh, who will serve on Mr. Taylor's staff, will assist in providing transportation facilities and abating deficiencies, where such exist, to the various shipyards on the Atlantic and the Pacific coasts. Mr. Welsh became associated with the Pittsburgh Railways in 1906 as assistant electrician. In 1910 he was made electrical engineer and in 1913 took charge of the traffic department. Prior to this time he was employed as an electrical engineer by the National Tube Company, Wheeling, W. Va., and also by the Westinghouse Electric & Manufacturing Company at East Pittsburgh. He was graduated from Wittenberg College in 1900, Harvard University in 1901, and Massachusetts Institute of Technology in 1903. He is a "Fellow" in the American Institute of Electrical Engineers and several years ago served as chairman of the Pittsburgh section of this organization. Since 1914 he has been chairman of the power generation committee of the American Electric Railway Association and has written many articles for the *Electric Railway Journal* and other technical papers.

We regret to report the death of our classmates Frank P. Johnson, Lawrence, Mass., on October 11, 1917, and J. Monroe Smith, January 22, 1918.

Robert Jackson, who has been doing architectural work at Mountain Lake, Fla., for nearly seven weeks, is spending a few weeks in Boston. He expects to return to Mountain Lake within a short time, and will be glad to hear from any of the boys. His address is, care Mountain Lake Corporation, Lake Wales, Polk County, Fla.

Changes of Address

Arthur F. Bennett, 71 Broadway, New York, N. Y.—J. Tyrrell Cheney, Congoleum Co., Morris Bldg., Philadelphia, Pa.—Charles S. Cole, Mineral Springs Hotel, Alton, Ill.—Frank G. Cox, Edge Moor Iron Co., 111 Broadway, New York, N. Y.—Montague Ferry, 500 DeWitt Smith Bldg., Springfield, Ill.—Capt. George R. Gaenslen, Aviation Section, Signal Corps, Powers, Ore.—Thomas M. Hamilton, Andes Exploration Co. of Maine, Calle Teatro 109, Arequipa, Peru, South America.—Arthur S. Martin, 243 Harvard Avenue, Allston, Mass.—Philip B. Rice, P. O. Drawer 978, Buffalo, N. Y.

1905

GROSVENOR D'W. MARCY, *Secretary*,
246 Summer Street, Boston, Mass.

CHARLES W. HAWKES, *Assistant Secretary*,
246 Summer Street, Boston, Mass.

Grove Marcy, our secretary, has entered the service, and is with the Military Intelligence Department No. 3, Office Chief of Staff, War Department, Washington, D. C. If he were in Boston, he would undoubtedly object to this small news item regarding himself coming first, but since he is in Washington, the assistant secre-

tary is going to place it just where he pleases. Grove went to Washington June 24.

I have a letter dated April 29 from Bob Gardner, or, to be correct, I should say Lieutenant Gardner. Bob has entered the service as naval constructor, with rank of lieutenant. He writes as follows:

The government has decided to take over a large part of the salvage business, both on this side and in the war zone. The work will come under the Navy Department, Bureau of Construction and Repair. I am attached to the Bureau, headquarters in Washington, detailed for special duty in New London. At present I have charge of the salvage diving school, that has just been established here. It will be my job to teach a number of young, fearless, ambitious sailors to be efficient divers, specially trained for salvage work. Later, I expect to have a lot of work in connection with the standardization of the wrecking gear taken over by the government from the various wrecking companies, and the fitting out of government salvage steamers and barges.

Barlow (James E.) is now city manager of Dayton, Ohio. Dayton is run under the new city management plan, and Barlow has been principal assistant to the chief engineer under Henry M. Waite, the former city manager.

A card dated April 1, 1918, reads as follows:

The firm of Sheridan, Sheridan & Smith has admitted to partnership George Bayard Jones, formerly practicing at 1445 Monadnock Block. The new firm will be known as Sheridan, Jones, Sheridan & Smith, and will continue the practice of patent law at 1534 Marquette Building, Chicago, Ill.

Harry Wentworth writes as follows, under date of April 20:

During my last Mexican trip, I found Willard Simpson in San Antonio looking prosperous and happy. He is the leading light of W. E. Simpson & Co., civil and mechanical engineers, and with the present construction activity of that general region, twelve to fifteen hours seems to be the standard day. After hours, he picked me up for a run out to Kelley field to watch the aviators. After an hour's ride on a passengerized box car from Mexico City, I dropped off at the ancient city of Cuantillan, and meandered through to its opposite side, where I located Harry Whitney, in complete ranchero regalia, bossing the activities of some one hundred peons engaged in the construction of corrals and buildings for some two hundred and fifty head of cows, with which Harry and his brother plan to stock the hacienda. Located close to Mexico City, with a railroad depot within a stone's throw of the barn, and five hundred acres of rich land under cultivation, it should be a fine proposition when completed.

The most noticeable thing at present is Harry's desire to get back with the family which he left in December. Next to that comes the green expanse of grains and the pretty American house and garden in strong contrast to the adobe of the neighboring towns. The hacienda is only one of several activities in which Harry and his brother are engaged. He plans to be back home about the 1st of June.

Yesterday was San Jancindo day in San Antonio, and it gave one a thrill last evening to watch our troops as company after company swung by interspersed with beautifully lighted and decorated (with ladies) floats representing the Allies, Red Cross, etc.

The following formal notice has just been received from the Alumni office regarding Charlie Clapp:

Prof. Charles H. Clapp, of the class of '05, is acting president of the Montana School of Mines at Butte, Mont.

Fred W. Simonds has just been appointed city engineer of Rahway, N. J.—Selskar Gunn is in France conducting a strenuous fight against tuberculosis. Gunn now ranks as captain and has been serving ever since last summer.—William S. Mann is now assistant chief engineer at the Republic Iron and Steel Company, Gilbert, Minn.—William Bixby's address is now 2503 Kensington Place, Nashville, Tenn.—Joe Daniels is at 5511 University Boulevard, Seattle, Wash.—Thomas Shaw, of Course VI, has just lost a five-and-a-half-year-old son. Shaw's address is 266 Lookout Avenue, Hackensack, N. J.

With the many extra duties during war times, it is easy to neglect sending in news items for the REVIEW. Still there was never a time when the men were changing and taking up vitally interesting work on such a large scale. Just a little time will give us information of much interest to the other fellows. I hope every fellow will remember this, and that our next batch of news will be much longer.

 1906

JAMES W. KIDDER, *Acting Secretary*, 50 Oliver Street, Boston, Mass.

1906 Roll of Honor, M. I. T.

Army

F. G. Baldwin, Capt., 323 F. A.—F. R. Batchelder, 401st Tel. Bn., American E. F., France.—H. C. Blake, Capt., B Co., 309th Engrs., Fort Leavenworth, Kan.—A. G. Bruce, Capt., Engrs. T. C., American University, Washington, D. C.—W. I. Couper, Maj., E. O. R. C., Constr. Q. M., Camp Jackson, Columbia, S. C.—H. V. Fletcher, 1st Lieut., E. O. R. C., Fort Leavenworth, Kan.—J. N. Gladding, Capt., E. O. R. C.—H. B. Hallowell, Capt., O. O. R. C.—A. W. Hemphill, E. O. R. C., Camp Harrisburg.—G. M. Henderson, 1st Lieut., E. O. R. C., 33d Regt. of Engrs., Camp Devens, Ayer, Mass.—T. L. Hinckley, 5th Bn., Plattsburg T. C.—G. F. Hobson, Capt., 305th Regt. of Engrs., Camp Lee, Petersburg, Va.—B. R. Honeyman, Capt., E. O. R. C., Fort Leavenworth, Kan.—W. W. Hosmer, Jr., American E. F. in France, care of Adjutant-General, Washington, D. C.—Stephen Kearney, Capt., E. O. R. C., Camp Lee, Petersburg, Va.—J. T. Lawton, Capt., E. O. R. C., General Engineering Depot, Washington, D. C.—C. T. Leeds, Capt., E. O. R. C.—P. F. Mann, 2d Lieut., 3d New York F. A.—E. L. Mayberry, Capt., E. O. R. C., Vancouver Barracks, Vancouver, Wash.—Dr. J. H. Means, Capt., Med. R. C., now in England.—C. A. Merriam, Capt., E. O. R. C.—H. H. Nelson, Avia. Service, M. I. T.—J. B. L. Orme, Capt., O. R. C., Camp Ordnance Officer, Camp Bowie, Fort Worth, Tex.—E. B. Pollister, 1st Lieut., E. O. R. C., 319th Engrs., Palo Alto, Cal.—G. A. Quinlan, Maj., 113th Reg. of Engrs.—J. G. Riley,

Capt., Med. S. C.—J. A. Root, Capt., Ord. O. R. C., Peters Cartridge Company, Kings Mills, Warren County, Ohio.—L. H. Tripp, Capt., U. S. A., Q. M. C.—L. B. Webster, Capt., Ord. Insp.—W. W. White, Priv., Avia. S. Sig. C.

Navy

J. L. Ackerson, Nav. Constr., Assistant Director General of Emergency Fleet Corporation.—C. L. Anson, Insp., Charlestown Navy Yard, Charlestown, Mass.—R. W. Babb, U. S. S. *Old Colony*. E. P. Chase, U. S. N. R. F., Special Insp. and Test.—N. Fallon, Ensign, N. A. D.—F. M. Fuller, Lieut., U. S. N. R., O. D.—R. D. Gatewood, Nav. Constr., League Island Navy Yard, Philadelphia, Pa.—L. H. Maxfield, Lieut., U. S. N., Navy Dept., Washington, D. C.—H. C. Richardson, Asst. Nav. Constr., Navy Department, Washington, D. C.—R. W. Rose, Ensign, U. S. N. R., U. S. S. *Georgia*, care Postmaster, New York, N. Y.—F. B. Thurber, Lieut., U. S. N. R., Com. Mine Sweeping Force, Newport, R. I.—P. E. Tillson, Lieut., U. S. N. R. F., U. S. S. *Maine*, care Postmaster, New York, N. Y.

In Civilian Capacities

E. C. Steinharter, M.D., with Cincinnati Base Hospital.—A. E. Wells, U. S. Bureau of Mines, assisting in procuring materials for manufacture of explosives.—C. F. Willis, Secretary of Committee on Scientific Research of Arizona State Council of Defense.

Necrology

R. R. Heuter, 1st Lieut., O. R. C., was accidentally killed just previous to his departure for the First Officers' Training Camp at Plattsburg.

But one new name has been added to the Roll of Honor since the April issue; that is Stephen Kearney (I) who is now a captain in the E. O. R. C. and at last accounts was located at Camp Lee, Petersburg, Va.

Dr. J. H. Means has been promoted from a first lieutenant to a captain in the Med. R. C. Captain Means is now in England.

"Jimmie" Root, otherwise known as Capt. John A. Root, O. R. C., is now at the Peters Cartridge Company, Kings Mills, Ohio.

J. L. Ackerson, the first man upon our Naval Roll of Honor, has recently attained national prominence by his appointment as assistant to C. M. Schwab, Director General of the Emergency Fleet Corporation.

1906 will remember Ackerson as one of the Annapolis men who came to the "Stute" to take a graduate course in naval architecture. The following extract from the *Official Bulletin* of May 14 sketches Ackerson's rise to his present position.

Mr. Ackerson, who is to be assistant to Mr. Schwab, has had long and practical experience as an officer in the Construction Corps of the United States Navy. He was born in Michigan in 1881. Entering the Naval Academy in 1897, he graduated in 1901 and spent the following two years at sea as a midshipman. In 1903 he was selected for the Construction Corps and was sent to the Massachusetts Institute of Technology for a post-graduate course in naval architecture. He graduated in 1906 with the degree of Master of Science, and was detailed to the New York Navy Yard. He later became fleet naval constructor under Admiral Schroeder when that officer commanded the Atlantic Fleet.

Upon the completion of this sea duty, Mr. Ackerson was sent to Washington and assigned to the design branch of the Bureau of Construction and Repair, where he remained for five years. During the period that he was with the design branch, Mr. Ackerson was superintendent of construction at the Maryland Steel Works, Baltimore.

In 1915 he was sent to the Mare Island Navy Yard, where he acted as superintendent of the new construction, working on colliers, battleships and destroyers. In June, 1917, he was ordered back to the Bureau of Construction and Repair for special temporary duty in the design branch. Last August he went with Admiral Capps as aide to the admiral when he joined the Fleet Corporation as general manager. After Admiral Capps left the Fleet Corporation Mr. Ackerson remained as aide to Mr. Piez. He was lent to the Emergency Fleet Corporation as a commissioned officer on active duty. As naval constructor he holds the rank of commander.

Nugent Fallon's meritorious conduct as a naval aviator is recounted as follows in the *Boston Globe* of March 30, 1918.

BY CHARLES S. GROVES

Washington, March 29. Information that the Ensign Fallon who recently carried his wounded assistant to safety while they were flying over the North Sea in service under Vice-Admiral Sims was Nugent Fallon of Boston, was given today to Representative Tague by the Navy Department, which also said that Fallon has been recalled to America to act as an instructor and will be promoted.

Ensign Fallon is a Technology man, and later became a division superintendent for the Boston Elevated, being at the time the youngest division head in the employ of the company. He then engaged in the manufacture of shoes in Newburyport. He enlisted in the United States Naval Aviation service almost as soon as war was declared and for a long time has been attached to the Royal Navy Air Fleet at Felixpoe, a British naval base in the North Sea.

He has been flying there since November and with one other American is all that is left of the American naval fliers sent there, the others having been killed. He has been in numerous bombing raids over Germany, and letters sent to his brother detail many exciting experiences he has had.

Ensign Fallon is a member of the Corinthian Yacht Club of Marblehead, the New York Yacht Club and the Boston Athletic Association.

We have learned, indirectly, that there are three other '06 men connected with the Emergency Fleet Corporation. They are Bell, Brown and Tomlinson, all Course XIII. It is also rumored that Rausch is with the Navy Department in Washington. These items were received too late to include details in these notes, but we will endeavor to run these clues down before the next issue.

At last reports A. E. Wells, who has charge of the U. S. Bureau of Mines experiment station at Salt Lake City, was giving the War Industries Board the benefit of his experience pertaining to sulphuric acid, in which subject he has specialized.

Norman P. Gerhard (I), for ten years assistant engineer, Board of Water Supply, City of New York, has accepted a position as

resident engineer for Mr. James H. Fuertes, Consulting Engineer, at Cumberland, Md.

Arthur P. Watt (III) has resigned as metallurgist with the Missouri Metals Corporation and has opened offices as Consultant in Ore Dressing at 52 Vanderbilt Avenue, New York.

The Atlanta, Ga., *Journal* of April 4 contained the following note:

Emory University, Oxford, Ga., April 4. Prof. George P. Shingler, an alumnus of Mercer and Massachusetts Institute of Technology, and for a number of years professor of chemistry in the School of Liberal Arts of Emory University, has been offered a government position in Washington. Professor Shingler has not yet announced whether or not he will accept the position.

Another Course V man is mentioned in the *Iron Age* of March 7, namely, F. H. Willcox, who has recently been elected secretary of Freyn & Co., Engineers and Contractors, Chicago. The clipping reads as follows:

Mr. Willcox has been with Freyn & Co. since September, 1917, having previously been connected with the Bureau of Mines. Prior thereto he was assistant blast furnace superintendent for the National Tube Co. After leaving the Massachusetts Institute of Technology, he went to the Carnegie Steel Co., Duquesne, Pa. His work with the Bureau of Mines was in connection with iron and steel metallurgy.

The Secretary was more than pleased to receive this note from Mrs. A. C. Hammerstrom, better known to members of 1906 as Miss Cederholm, of Course V.

"Perhaps the following would be of sufficient interest to you to add to the '06 notes in the next TECHNOLOGY REVIEW:

"To Mr. and Mrs. William G. Hammerstrom a son, Richard Jewell, born January 10, 1918.

"Mr. Hammerstrom is a member of the class of 1912, and we sincerely hope that our two boys will add other numerals and M. I. T. to their names."

It is always a pleasant duty to include birth notices in the Class Notes, but this notice should receive special attention, as it is most unusual to be able to report the arrival of a "Techlet" where both parents have attended the Institute. We all share the hope of Mr. and Mrs. Hammerstrom that their boys "will add other numerals and M. I. T. to their names."

Speaking, or rather writing, of births, please observe this one, "Marcia Stone Kidder, born May 9, 1918." As Mrs. Kidder went to Boston University and Mr. Kidder already has his three-year-old slated for Tech, it appears doubtful if Marcia becomes a co-ed.

Jimmie Banash seems to be just as irrepressible as an engineer as he was at the Institute. As he himself has said, "Tis hard to keep a good man down." This notice is from the *Journal of Commerce* of May 21 and, all joking aside, we are more than pleased to be able to reproduce the good news.

J. I. Banash, for eleven years actively engaged as engineer at Underwriter's Laboratories, Chicago, in the examination and testing of hazardous appliances, has been appointed engineer in charge of the casualty department. He succeeds S. V. James, who is now mechanical engineer on special research work at the laboratories. Mr. Banash is a graduate of the Massachusetts Institute of Technology, a member of the American Society of Mechanical Engineers, the National Fire Protection Association, the National Welding Council and the International Association of Fire Engineers.

The variety of appliances submitted to the casualty department is a matter worthy of note. A few among them are: Goggles for many purposes, including those for welders, ladders, guarding devices for power-driven machines, elevator safeguarding appliances, shaft couplings, locking devices, anti-slip treads, scaffolding machines, window washers' safety belts, etc. The experience which Mr. Banash brings to the department will be of special advantage in meeting the problems of devising test apparatus and standardizing test methods frequently difficult and complex.

Another Course VIII man who is making progress in his profession is "Ned" Rowe. On May 1 he was promoted to assistant engineer with the American Agricultural Chemical Co., 92 State Street, Boston. In spite of Ned's job, he is never too busy to devote some time to M. I. T. and 1906; hence we will all congratulate him on his promotion.

One of the busiest 1906 men around Boston is Ralph Patch. Ralph is now general manager of the E. L. Patch Company. The secretary has just received No. 1, Volume I of *Patchwork*, published monthly to promote closer relations between "Physicians, Druggists and the E. L. Patch Company of Boston, Mass." The publication is introduced by an article of which Ralph was the author. Having read the aforesaid article, we now know just where to go when we want "live stuff" for the next "Cauldron."

The marriage is announced of Herbert W. Dean (VI) and Miss Marie L. Packer at Philadelphia, February 2. Dean is with the Bell Telephone Company of Pennsylvania.

As there had not been a class gathering of any kind for some twelve months, an informal dinner was scheduled for Tuesday, June 11, which date was selected by the Alumni Association as a visitation afternoon at the Institute. Several members of the class arrived in time to witness the drills by the aviators between 4.00 and 6.00 P.M. and also to inspect some of the war activities. The crowd became so interested over the hydroaeroplanes that we were finally requested to vacate in order to allow the building to be closed. At 6.30 P.M. we adjourned to Riverbank Court, where dinner was served to the following twelve men: Ball, Ginsburg, Griffin, Kasson, Kelly, Kidder, Lambert, Monaghan, Patch, Rowe, Tucker and Wight. The time after dinner was spent in informal discussion which covered a diversity of subjects from the long range gun to the taste of whale meat. We feel sure, however, that all present were glad they came and it is to be regretted that the attendance was not larger.

In closing our notes this month, we regret to record that death has claimed one of the members of 1906, namely, Walter Everett

Chadbourne (XIII), who died at the Peter Bent Brigham Hospital, Boston, on May 10. Chadbourne was born in Waterboro, Me., October 11, 1882. At the age of six his parents came to Dorchester, where they now reside. He attended the Mechanics Art High School before entering Tech. At the Institute Chadbourne received his degree in Naval Architecture. After finishing the course at Tech he studied electrical engineering at the Lowell Institute. He worked for a short time with the Edison Company and then turned toward the field of wireless telegraphy. He worked with Professor Fessenden at Brant Rock for several years, with the National Electric Signalling Company, and also with the Marconi Wireless Company in New York. While with the latter company he went abroad to study European wireless stations. Chadbourne left the Marconi Company to accept a position as expert radio aid in the United States Navy. He was assigned to the Charlestown Navy Yard in September, 1914, where he was located until his death. Apparatus of his design is now used in the government wireless stations. His death was the result of a tumor of the brain which had evidently been developing for a long time and which had caused him to have very severe headaches since his high school days. His final illness was of ten weeks' duration. Chadbourne is survived by a wife and baby daughter, one year old.

The secretary regrets he did not personally know Chadbourne, as he feels that he would have been able to render a better tribute to his memory if such had been the case. He would add, however, that he has communicated with Mrs. Chadbourne and expressed the sympathy of the class in her great loss. He also acknowledges his indebtedness to Mrs. Chadbourne for the above facts in connection with her husband's life.

1907

BRYANT NICHOLS, *Secretary*, 10 Grand View Road, Chelsea, Mass.

HAROLD S. WONSON, *Assistant Secretary*,
376 Blair Road, Washington, D. C.

Allan R. Cullimore went to Washington, D. C., in April of this year to take charge of the reconstruction work at the Walter Reed Hospital. On May 28 he was sent to Canada with the American Red Cross party to make a study of the work done in the hospitals of Canada, starting at Montreal and visiting the principal cities as far west as Calgary. He returned home late in June.—On December 31, 1917, Parker Dodge was married to Charlotte Phelps (Smith, '11; M. I. T., '16). On January 8, 1918, he was made Captain, Ordnance, N. A., and was assigned to duty in the Engineering Bureau on small arms work. He has only engineering duties, having discarded all legal work. His home is at "The

Ontario," Washington, D. C., and he extends a warm invitation to all '07 men to call on him there.—Seymour J. Egan, Hull Drafting Room, Navy Yard, Boston, Mass.—A letter from John Frank, dated May 31, 1918, reads thus:

Dear Bryant:

I am writing to notify you that I am the proud father of a daughter—Mary, born May 24.

I hope she will make Cleofan when she goes to Tech.

James P. Hinckley, 543 East 18th Street, New York City.—“Stud” Leavell is now Captain, Co. F, 316th Engineers, American Expeditionary Forces.—Hugh Pastoriza is a Captain, located in Washington.—Winslow D. Robinson is with F. W. Dodge Co. (“Dodge Reports”) at 114 Federal Street, Boston, and is living at 10 Hyde Street, Newton Highlands, Mass.—Merton Gage has left Schenectady and is with Pennie, Davis, Marvin & Edmonds, lawyers, at 35 Nassau Street, New York City. Home is at 173 South 3d Street, South Orange, N. J.—Edwin B. Snow, Book Building, Detroit, Mich.—Parker R. Whitney, 1127 12th Street, Boulder, Colo.—Albert E. Wiggin, a metallurgical engineer with the Anaconda Copper Mining Company, has been made general superintendent of the Boston and Montana Reduction Department of the company at Great Falls, Mont. Wiggin went to Great Falls in August, 1907, directly after his graduation from the Massachusetts Institute of Technology, and began work in the testing department. He was there a little more than four years. He was assistant to Superintendent Wheeler in special research of concentration methods when he was transferred to Anaconda, going there in December, 1911. He was assigned to special concentration engineering work in which experiments were being undertaken, and the experimental flotation work which resulted in a revolution of processes was in his charge. When the mill was remodeled and the new process was installed he was made superintendent of concentration, the position held by him until the present change. Wiggin was prominent in the civic and social circles of Anaconda, being a member of the school board and active in movements for the welfare of the community.

1908

RUDOLPH B. WEILER, *Secretary*,
Care The Sharples Separator Co., West Chester, Pa.

LESEUR T. COLLINS, *Assistant Secretary*,
Care Marshall & Co., 70 State Street, Boston, Mass.

Roll of Honor—Class of 1908

W. J. E. Barcus (III), Capt., O. O. R. C., Gun Div.—R. J. Batchelder (IV), Lieut., Red Cross.—F. M. Bond (II), Capt.,

O. O. R. C., Insp. of Ord.—E. L. Brown, Jr. (II), 1st Lieut., E. O. R. C., Gen. Engr. Depot.—J. H. Caton, 3d (I), Capt., E. O. R. C., Co. F, 33d Engrs.—H. D. Chandler (IV), Capt., C. A. C., U. S. A.—A. S. Cohen (II), 1st Lieut., O. O. R. C.—C. S. Cotter (XIII), Priv., 9th Canadian Inf. Brig.—Sam H. Dad-dow.—J. H. Davidson (VI), Capt., Inf., 19th Training Batt. Dep. Brig.—M. E. Denny (XIII), Maj., Mach. Gun Corps, British Army.—D. Dickinson, Jr. (II), Act. Asst. Surg., U. S. N. 11th Regt., Marines.—A. S. Douglass (I), Capt., O. O. R. C., Insp. Sect. Gun Div.—W. P. Druley (XIII-A), Lieut.-Commdr., U. S. N., Constr. Corps.—A. Ellis (III), 1st Lieut., 101st Engrs., 26th Div., Amer. Ex. Force.—H. A. Ellis (I), Lieut., U. S. N.—C. C. Ford (IV), Avia. Sect., Sig. Corps.—H. W. French (VI), 1st Lieut., E. O. R. C., Gas Service, Amer. Ex. Force.—F. J. Friedman (II), 1st Lieut., O. O. R. C.—H. T. Gerrish (I), 1st Lieut., Engrs.—W. B. Given, Jr. (VI), 1st Lieut., Inf., Co. L, 165th Inf., Amer. Ex. Force.—H. P. Gurney (X), 1st Lieut., San. Corps, N. A.—P. H. Heimer (III), 1st Lieut., E. O. R. C., Co. H, 1st Replacement Engrs.—H. B. Holmes (III), Capt., C. A. C., Batt. D, 63d Art.—J. E. Johnson (I), 1st Lieut., E. O. R. C., Co. F, 309th Engrs.—W. A. Johnston, Jr. (VIII), Co. K, 302d Inf.—W. C. Kerr (X), Sergt., Sig. C, Air Research Div., A. E. F.—J. R. Kibbey (IV), Capt., C. A. C.—J. H. Locké (VIII), Capt., O. O. R. C.—H. B. Luther (I), Lieut. J. G., U. S. N. R., Const. C.—O. S. Lyon (II), Priv. 1st Cl., Inf., U. S. A., Co. F, 107th Inf., N. G.—DeB. Myers (III), Capt., E. O. R. C., 304th Engrs., Camp Meade.—H. C. Patten (VI), Lieut., Avia. Sect., Sig. O. R. C., Prod. Expert, Equip. Div.—H. B. Pickering (VI), C. A. C.—P. R. Powell (II), 1st Lieut., E. O. R. C.—G. A. Quinlan (I), Maj., Eng. U. S. A., 113th Engrs.—H. A. Rapelye (II), Capt., I. O. R. C., Aide-de-camp to Maj. Kuhn, 79th Div.—W. D. Reed (IV), Capt.-Adj. Eng., U. S. A., 115th Engrs., A. E. F.—H. C. Schriefer (III), 23d Detach., 23d Engrs.—J. H. Sinclair (I-XI).—H. V. Spurr (I), 2d Lieut., F. A.—C. M. Steese (II), Maj., O. D., U. S. A., Office of Chief of Ord.—J. Tetlow (V-X), Ensign, U. S. N. R., Ord.—W. H. Toppan (X), Capt., C. A. O. R. C., 28th Co., C. A. C., U. S. A.—C. L. Wade (II), 1st Lieut., E. O. R. C., U. S. Geological Survey.—E. J. H. Waters (I), Engr., British Army.—H. E. Weeks (VI), 1st Cl. Priv., Avia. S. Sig., E. R. C.—H. W. Wellington (III), Asst. Surg., U. S. N.—G. C. Westervelt (XIII-A), Lieut. Commdr., U. S. N., Constr. Corps.—E. I. Williams (IV), Capt., Red Cross.

On the Part of the Secretaries

The annual meeting was held on April 9. The following were present: Douglas Cairns, S. F. Hatch, E. I. Wells, B. W. Cary, W. E. Barton, E. R. Smith, Clarence L. Hussey, L. Mayo, A. W. Heath, C. W. Clark, P. A. Esten, E. H. Newhall, L. B. Ellis, S. C.

Lyon, H. L. Carter, P. L. Handy, Myron M. Davis, Leslie P. Cassino, Franklin T. Towle.

Captain Woollen of the Ordnance Department, formerly with Stone & Webster, gave a very interesting talk on certain aspects of the war and on electricity as related to the war. It was voted to remit the dues of men in the service, so it is all the more necessary for the rest of us to "come across." In view of present conditions, it was voted to postpone indefinitely the publication of the *Ten-Year Book* and the ten-year reunion.

Arnold W. Heath was married on May 29 to Miss Rella Partridge at Boston. "Winch" is assistant purchasing agent at the Watertown Arsenal.

The following is taken from the *Boston Traveler* of June 11 under marriage intentions filed: "Samuel H. Daddow, soldier, of St. Clair, Pa., to Miss Margaret T. Wilson, nurse, Minersville, Pa." Daddow had not previously been reported as in the service.

On June 1, Douglas Cairns was placed in charge of the motor and generator business of the Holtzer-Cabot Electric Co., in the New York district, with offices at 101 Park Avenue, New York.

The secretary is, he believes, in possession of the reason why the members send in so few communications. They are poor correspondents, some of them not having written any letters since the three-cent letter postage went into effect, judging by the number of replies received to the annual letter with insufficient postage on them.

"Tim" Collins has recently returned from a trip to Seattle, traveling some twelve hundred miles by motor through that interesting country. Seattle is decidedly on the boom with its shipbuilding program in full swing and it has increased its population during the last two years by probably one hundred and fifty thousand people. The present population is about five hundred thousand. Seattle is turning out eight per cent of all the ships contracted for by the shipping board, and the whole city is a beehive of activity.

Charlie Whitmore is back in Boston again as mechanical engineer for the Riverside Boiler Works, Cambridge.

From *The Tech*, April 3:

Miss Mabel Keyes Babcock, '08, will have the direction of the agricultural courses at the Lowthorpe School at Groton, Mass. Miss Babcock is now mobilizing the women about Boston and vicinity for land service work. It is not to be a fad in any sense of the word, but a real contribution toward supplying women in this country to take the place of intelligent farm managers who go to the front or find places in the industries of war. The women will be instructed in the business principles of farming, general agricultural conditions, the chemistry of soils, plant growing, the use of fertilizers, the treatment of general farm crops and the care of animals. The students will live at Groton and have experience in the greenhouse and in the outlying farm districts.

Addresses wanted: Victor O. Westervelt, Walter L. Patton, Burkett S. Clayton, Ralph C. Walter.

New Addresses

George M. Johnstone Mackay, Nahant, Mass.—Leslie B. Ellis, care Lockwood, Greene & Co., 60 Federal Street, Boston, Mass.—Allen E. Hazard, Campello Car House, Brockton, Mass.—Douglas Cairns, 101 Park Avenue, New York City.—Dwight Dickinson, Jr., Lieut., U. S. N. R., Medical Corps, 4th Replacement, Battalion Marines, Marines Mail, care Postmaster, New York City.—Willis H. Mason, care Federal Export Corporation, 42 Broadway, New York City.—Everett H. Newhall, Revere Sugar Refinery, East Cambridge, Mass.—Arnold W. Heath, Watertown Arsenal, Watertown, Mass.—John A. Kydd, Riversich Worsted Mills, Providence, R. I.—H. Ross Callaway, 268 Summer Street, Boston, Mass.—H. P. Sweeney, Fort Montgomery, N. Y.—Donald Bowman, Commonwealth Edison Co., Room 620, 72 West Adams Street, Chicago, Ill.—George T. Glover, Deisel Wemmer Co., Lima, Ohio.—Richard C. Collins, care L. Candee Co., Box 143, New Haven, Conn.—Chester S. Colson, International Paper Co., 30 Broad Street, New York City.—Stephen Lock Davidson, Beacon Bldg., Wichita, Kan.—W. C. Folsom, Health Department, Cincinnati, Ohio.—Gregory M. Dexter, care Honolulu Iron Works Co., 233 Broadway, New York City.—Leo D. Nix, 706 American Bank Bldg., Birmingham, Ala.—Ralph E. Beck, 477 Vernon Avenue, Long Island City, N. Y.—Frank Belcher, care Pusey & Jones Co., Wilmington, Del.—Melville B. Hall, Brown & Hall Supply Co., 1515 Price Street, St. Louis, Mo.—Lawrence A. Clark, Pontiac, Ill.—Alexander C. Sloss, 4th National Bank Bldg., Grand Rapids, Mich.—Horace S. Sargent, Submarine Signal Co., Atlantic Avenue, Boston, Mass.—LeSeur T. Collins, 70 State Street, Boston, Mass.—Chester C. Ford, Camp Green, Aviation Section, Charlotte, N. C.

1909

CHARLES R. MAIN, *Secretary*,
201 Devonshire Street, Boston, Mass.

GEORGE A. HAYNES, *Assistant Secretary*,
530 Atlantic Avenue, Boston, Mass.

The last of the season's bi-monthly dinners was held on May 15 at the Walker Memorial. Nine of the fellows were present and plans were discussed for the outing, which now appears to be an annual affair. These dinners through the winter have proved most enjoyable, and although the attendance was relatively small as compared with the number of men in Boston and the vicinity, I think they have been well worth the effort. It is hoped that they may be continued next winter.

'09 MEN MAKE SUCCESSFUL ATTACK ON
FALMOUTH HEIGHTS

Favored by the elements, eleven members of 1909 visited Terrace Gables at Falmouth Heights, Saturday to Monday, June 15 to 17, for the purpose of enjoying themselves.

Those participating in the attack and who can vouch for its success were: Dawes, Finnie, Gram, Haynes, Main, L. C. Shaw, R. L. Smith, Spencer, Temple, Thornley, Wallis.

The forces came in relays, all by auto, and arrived at intervals throughout the 15th.

Two cars driven by "Chet" Dawes and "Heine" Spencer, left Copley Square at nine-thirty. They contained: Carl Gram, Ray Temple and George Wallis, and picked up "Chick" Shaw on the outskirts of Brockton.

One car, driven by Thornley, and containing Jim Finnie, arrived from Providence at noon. At 3.30 "Charlie" Main and George Haynes arrived just in time to catch the ball game. Later in the day "Bob" Smith arrived in his car from Winchendon.

The time was well spent playing ball, swimming, spearing fish and eating. One of the features of the trip was the activities of certain members chasing herring. So adept did they prove themselves, that George Wallis is seriously considering plans to establish a fish freezer at Falmouth Heights.

Sunday morning, after a trip to Woods Hole, some of the party visited a real Cape Cod strawberry bed, where, with a successful recollection of Spanish, they managed to obtain permission from the Portuguese proprietor to eat themselves sick.

In the afternoon a power boat was boarded and a trip made to Cottage City. The voyage was safely made without sighting any U-boats.

Unfortunately, some of the out-of-town fellows had to return home Sunday night to be on the job Monday, but as Boston had a holiday Monday, June 17, most of the bunch stayed over and came back over the road Monday, going via Sagamore and Plymouth, with stopovers for a dip at Plymouth and a feed at the Pembroke Arms.

Every one enjoyed himself to the limit, and the trip is now but a memory, with a hope for the future, when perhaps a larger number can join the round-up next spring. Plan now to be on deck.

Since the last writing, the secretary has heard from several of the class who are in service.

Lawrence D. Chapman is now at the Artillery Officers' Training Camp at Fort Monroe, Virginia, to which he was sent following enlistment at Fort Banks.

William Duncan Greene writes from Camp Hancock, Ga.:

Two items of interest are, I believe, worthy of happy mention. One is my engagement to Miss Gertrude E. Jenkins of Pittsburg, now living at Mt. Lebanon,

just outside that city. The other is my second lieutenancy in the Infantry Reserve Corps, which dates from August, 1917. I have been stationed at several camps, including McClellan, Wadsworth and Sherman, and am now at the Machine Gun Training Center at Camp Hancock, in supply work.

I saw a little of Scharff at Anniston last fall and had a brief glimpse of Bernard Fuller and his family in the wilds of North Carolina, en route in a change of station in January, but otherwise am pretty much out of touch with '09 these days. News is welcome.

F. H. Bishop, Company K, 101st Infantry, states that he was too busy at Camp Devens to attend the outing.—Henry C. Drown's father writes that his son is now in France as first lieutenant in the 101st Engineers.—Frederic A. Fenger has been commissioned as ensign and is in service on the U. S. S. *Chester*.

A most interesting letter was recently received from David P. Marvin, lieutenant in the U. S. Coast Guard, now on the U. S. S. *Denver*. He writes as follows:

A copy of THE TECHNOLOGY REVIEW came to me in the mail yesterday, and I turned almost at first to the '09 news, and was delighted to see how many men we have in the services. And I am glad to have an alteration to my own address to report, as I am now on the ship named above. I had been four years in the Coast Guard cutters on the west coast, much of the time in Alaskan waters, and was glad to get back East again, though I already begin to have a soft spot for the desolate Aleutian Islands, bare of trees, with volcanoes the only lights for hundreds of miles of lonely steaming and where the very topography changes from year to year, the land is so new. The cutters I was in, the *Manning* and the *Unalga*, were up there largely to patrol the Alaskan coast and Bering Sea against the seal poachers, who formerly were very numerous there; but the dangers of the poaching business are so great, and the profits so doubtful, that there is not much excitement to the patrol of empty waters. Many of the officers I have been with thought that "the war will stop before we can get down," and the warlike were very much wrought up; at present it seems that there will be enough to go around.

If you are collecting class statistics, and as a matter of general information, it might be well to note that I was married on November 24, 1915, to Miss Cathryn Williams, at Seattle, Wash., and that our daughter, Jeanne Marvin, was born March 18, 1917. When my bachelor friends introduce me to their lady friends they call me "an old married man." This unfortunate affair happened last night, and the worst sting was that the young lady said, afterwards, that "she could have seen it, anyway, without being told." Well, my hair *is* getting a little thin in front. You may judge from the above that I am in port, away from the family. Surely, the censor could not object to that much information.

There are not many Tech men in my line of work, and my Tech experiences seem like memories from a previous lifetime. Some years ago, while I was a cadet on the Coast Guard practice ship, I went in to the wharf at a little fishing village on the eastern end of Long Island. I had charge of a surfboat, the weather was rainy and choppy and generally nasty, and I was "foraging" for a mess of fresh fish from some fishing sloops. The ship had run short of fresh meat by some minor miscalculation. An oilskinned figure on the wharf hailed me. It was one of my Tech friends, and we had been particularly intimate, I remembered afterward. I knew I had known him well, but couldn't remember when or where, though I was greatly delighted to see him. I wonder if others have this feeling of lack of continuity in their experiences.

Although not in service, Maynard and Nisbet are on government work, the former at the South Boston Terminal, and the latter in a shipyard at Portsmouth, N. H.

Carl Gram reports the birth of a ten-pound daughter on May 23. The young lady has been named Alberta. Congratulations, Carl!

Announcement has been made of the marriage of Lincoln R. Soule to Miss Margaret Newell of Springfield, Mass., on May 2, 1918.

The secretary has received a communication from Dr. Tyler regarding the work of the M. I. T. War Service Auxiliary. Reports of the work of this organization have appeared in the REVIEW, and what it has accomplished is most gratifying. A good many of the ladies, who have been giving considerable time to this work during the winter, will be away during the summer months, and it is hoped that a larger number of the wives and relatives of Tech men may become interested in this work, so that it may be carried on as usual. I trust that if any of the ladies of our '09 family are able to give some time to this work, they will communicate with Mrs. Sedgwick or Mrs. A. J. George at the Rogers Building, who will be glad to supply more detailed information.

1910

DUDLEY CLAPP, *Secretary*, Box 1275, Boston

There are a few items of news that have come to Box 1275, and the compiler of this record hopes that during the next few weeks the members of the class will send in longer communications.

H. A. Higbee is now with the Red Cross in Paris.—Holman I. Pearl is at Rice Lake, Wis.

A special dispatch to the New York *Sun* says that Mr. and Mrs. Martin J. Quinn of 42 West Forty-Ninth Street, New York, announce the engagement of their daughter, Miss Elsinore Margaret, to Lieut. Curtiss C. Webb, son of Mr. and Mrs. Lewis Webb, of California. Lieutenant Webb is now stationed at Ellington Field, Houston, Tex. No date has been set for the wedding.

Lieut. John P. Wentworth of the Sanitary Engineers Corps at Camp Lee, Petersburg, Va., and a former Malden boy, has, after six months of service, been advanced to captain. Captain Wentworth has supervision of the water supply of the entire camp. He is a graduate of Tech.

Henry F. Miller, son of William T. Miller, of the Henry F. Miller Company, who has been the factory manager at Wakefield, has been granted a leave of absence, and has entered the service of the government. He has gone to Washington, where he is attached to the material equipment department with the aviation section of the Signal Corps.

Malcolm Dana Price, who died in New Orleans, La., in April, was a Boston business man, and had been in the South for several months because of ill health. He was a native of Sioux City, Ia.,

and was thirty-one years old. He went to the Institute following his schooling in Brookline, where he lived with his aunt, Mrs. Charles H. Utley. Six years ago he married Miss Dorothy Gooding of Brookline, and thereafter their married life was spent at 106 Marion Street. In business Mr. Price was engaged in the installation of cold storage and refrigerating plants in the East. He was a member of the class of 1911, but always affiliated with the class of 1910.

The class secretary, while a very busy man, finds time to write interesting and entertaining short notes to his family, but as a colonel of the United States Army, one of his friends likes to say, Dudley Clapp is remarkably "discreet." As a result, not much is known of his movements. However, on his return, he intends to write a book about "War Horses I Have Met." The first horse that he met had never heard a cannon or a band, and the secretary had a miserable week in breaking him in. Then he was given a horse that had never seen snow, with the result that at every bush or tree that was covered with white flakes, the animal went up in the air and did a circus act. But his third horse was the worst of all. This beast was afraid of mud, and a horse in France that is afraid of mud is of little use. He had probably been mired in his early days and the memory of that experience had clung to him. He would trot along contentedly on a smooth road with pieces of shrapnel dropping about him, and if the Huns got the range of the road and started to shell him it didn't bother him in the least, as he trotted along at a regular gait, but as soon as he came to a place where there was mud, he tried in every way to show the fiend that possessed him. At last the secretary succeeded in getting a horse that was human and of which he is very fond, as he is writing poetry to her.

He has met quite a number of classmates that he has not seen since graduation, and hopes that all those who remember the days when the *M I T T E N* boys were together will send him a line. The compiler of this record is sending all the items relating to gas and gas masks that come to his attention, and it is hoped that any classmate who finds an item on these subjects will send it at once to Box 1275, whence it will be mailed to France, to be used in the official scrap-book of the Gas Defense Service. The secretary is sure of one thing about this war, and that is that he has found the most interesting branch of service that Uncle Sam has to offer.

The secretary has visited the Tech headquarters in Paris several times and has been always cordially received. He is enthusiastic over the work that the women of the Boston Committee are doing and has written Mrs. Edward Cunningham regarding this. He believes that as far as the army in France is concerned, Tech is on the map and on the map to stay.

Does any classmate know anything about Charles Donald Carey? He took Course II. For some time he has been connected

with the Bethlehem Steel Company, South Bethlehem, Pa., but a letter sent to him at that address is returned with word from the postmaster that he is dead. It is hoped that some one can give information about him.

The compiler of these notes is clipping from several papers everything that appears in them about gas and gas masks for the use of the secretary. Will readers of this item please send to Box 1275 whatever clippings they can on these subjects? The secretary will acknowledge them through the REVIEW.

W. W. King is now a 1st Lieut. in the Avia. Sect. of the Sig. Corps.—Kenneth Leavens is a 1st Lieut., E. O. R. C.—Harold Lockett has been at the Second Training Camp at Fort Sheridan.—John H. Rucknam is a 2d Lieut. of Inf.—Hermann C. Schmidt is a Capt. in the Field Service, O. O. R. C.—C. H. Shaw, Capt., E. O. R. C.—Walter T. Spalding, Capt., E. O. R. C., Arsenal Const.—Arthur L. Stein, Priv., N. A.—Frederick H. Stover, Capt., 5th Co., E. O. R. C.—R. A. D. Preston, U. S. N. R. F.—T. A. Roper, 1st Lieut., O. O. R. C.—Francis S. Smith, Ambulance Service.

Leroy E. Briggs has been made a captain in the Ordnance Department and is at Bridgeport, Conn., to organize the government inspection office at Remington Arms upon the new Browning machine gun. Captain Briggs entered the service last summer as engineer in the Ordnance Department, being engaged in duties connected with the manufacture of machine guns. His previous experience in this line of work included employment in the Engineering Department of the Remington Arms in New York, and training in the Machine Gun School at Springfield Arsenal and in automatics at the Colt Plant in Hartford. He was also a member of Thomas A. Edison's engineering staff.

Mrs. Samson K. Cohen of 42 Waverly Street, Roxbury, is the proud possessor of a small piece of a German Zeppelin which she received a few days ago from her husband "somewhere in France," where he is first lieutenant of a regiment of engineers.

The souvenir is a 10-inch long strip of cloth material, which appears very much like stout, pliable canvas. It is believed to be a piece of the outer covering. It is coal black on the outside and light gray on the inside, on which Lieutenant Cohen has penned a brief message to his wife.

He says it is a souvenir of one of a fleet of enemy Zeppelins, several of which were brought to earth at Bourbonne-les-Bains on October 20. It was given him by a French officer at a recent dinner, at which he was the only American officer present. The souvenir bears the autographs of two French officers.

Cohen is twenty-eight years old. He was a Franklin scholarship medal graduate at Boston English High School in 1906 before coming to Tech. He received his commission at Plattsburg on May 8.

Harry E. Bateman of Boston, formerly of Pittsburgh, has announced the engagement of his daughter, Miss Margaret Louise Bateman, and Sherman Rodman Ramsdell of Boston. Miss Bateman is a graduate of Pennsylvania College for Women and was for some time on the staff of Pittsburgh Carnegie Library. The wedding will be an early event. Ramsdell and his bride will reside in Cambridge.

Mr. and Mrs. Martin J. Quinn of 42 West Forty-Ninth Street and Field Point Park, Greenwich, Conn., announced last week the engagement of their daughter, Miss Elsinore Margaret Quinn, to Lieut. Curtiss C. Webb, U. S. R., son of Mr. and Mrs. Lewis Webb of California. Lieutenant Webb was graduated from the Massachusetts Institute of Technology and is now stationed at Ellington Field, Houston, Tex. No date has been mentioned for the wedding.

An item of interest from the *Boston American* of May 17, 1918:

Malcolm D. Price, who died in Brookline, April 15, in his will probated at Dedham, bequeathed the sum of \$100 to the Phi Beta Epsilon fraternity at Technology, to be used for the purchase of furnishings for the Fraternity Home. The testator left an estate inventoried at \$12,500 personal property to his widow, Mrs. Dorothy G. Price.

William O'Hearn is engaged to Miss Annette Foley of Brookline. Miss Foley is a graduate of the New England Conservatory of Music. O'Hearn will be remembered as one of the first men who was enrolled in the M. I. T. Catholic Club.

A letter to the secretary from Davis R. Dewey, of the Department of Economics, M. I. T., states that Frederick A. Dewey of the M I T T E N class has been promoted to major in the Sanitary Corps, Gas Defense Service.

May 23, 1918, the following letter was received from H. E. Beebe, in Ipswich, Edmunds County, S. D.

Notes of various kinds seem to be the style now, especially in the White House, but the notes I am most interested in are good old United States bank notes. (Villa or Carranza bank notes need not apply.) Since graduating, I have continued working into the banking business and at present have the job of vice-president of the Bank of Ipswich. The bank is a home product, having started with the earliest settlement and is still in the ring. We celebrated the new year by declaring a dividend of 28 per cent on the stock and a bonus of 20 per cent of 1916 wages to the employees. The bonus interested me more than the dividend. My work runs from scrapping with the janitor to tracking around the state looking for honest men in need of money and who are not afraid of interest. The slide rule comes in handy for figuring interest and the way stacks of hay can be computed makes the customers look dizzy. I'll have to admit right now that two years after graduation I gave away all engineering books to places which could use them better. All that is left is the slide rule and the remainder of habits of hard, earnest work, drilled into me by the spirit of the faculty at Tech. That alone is worth the \$125 per month spent in Boston attending Tech, the Symphony concerts and theaters. May the spirit never decrease in the new site.

When you go to Yellowstone Park, take the Yellowstone Trail, which has been mapped from Plymouth Rock to Puget Sound. When you get to Edmunds County, about seventy miles east of the Missouri River, arrange to stop off at Ipswich and

say hello. You will find July and later to be the best months for traveling, if it is not too cool in the Park. Earlier than that, rain and mud are more liable to hinder.

The above was written some time ago and since then business has been increasing all the time. Our deposits went over \$700,000 last fall and are still over that mark. We are aiming for the million-dollar mark. This war has made our working force a variable quantity, but we must submit to all such things as this if we mean to win the war. The people of the Northwest are behind the government for every cent and every drop of blood. I had the pleasure of being chairman of the Third Liberty Loan for this county. Our allotment for this county was \$220,000 and we raised over \$335,000. Yours to win the war.

1911

ORVILLE B. DENISON, *Secretary*,
63 Sidney Street, Cambridge A, Mass.

HERBERT FRYER, *Assistant Secretary*,
Room 612, 148 State Street, Boston, Mass.

At this writing (mid-June) the 1911 service flag contains ninety-seven (97) stars, according to the best advices the secretary has received. So you see the class has pretty nearly, if not actually, passed the century mark. Since the appearance of the April notes three additions and one subtraction have been made, the newcomers being J. O. Greenan, III, C. H. "Skip" Harrington, I, and T. L. Wheeler, X, while the classmate erroneously credited in the past is W. C. West, II. Let Greenan tell his own story to you as he told it to the secretary in a letter sent April 30 from Cheyenne, Wyo.:

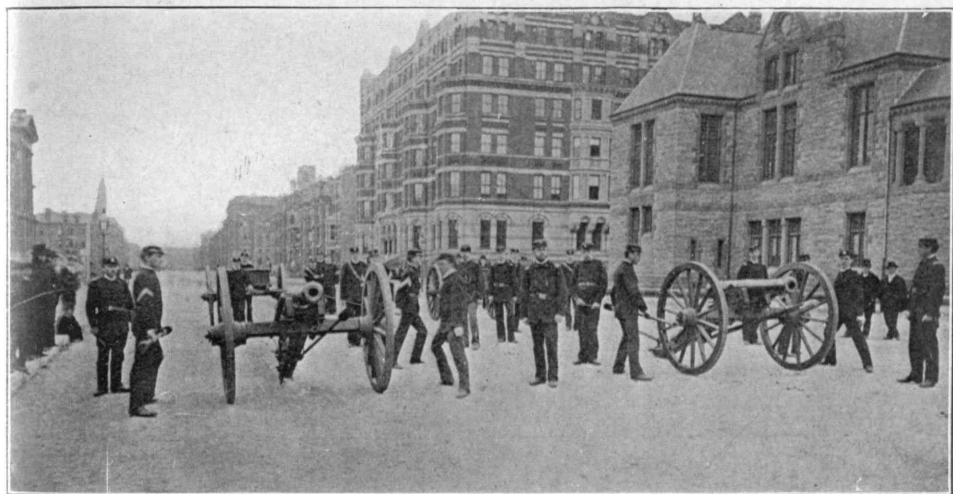
I'm certainly glad to be able to tell you that you can add my name to the list of '11 boys in the service.

You may recall my having mentioned in a previous letter that I broke my left arm a few years ago, with the result that I only secure about one-half the bending movement I should. This disability barred me from the first training camps and was also the cause of my being rejected twice, when I attempted to enlist a little over a month ago. I decided to make a final try, so I went to San Francisco and at first met with the same reception. I thought I surely could get into the French Army, but they wouldn't take me, either.

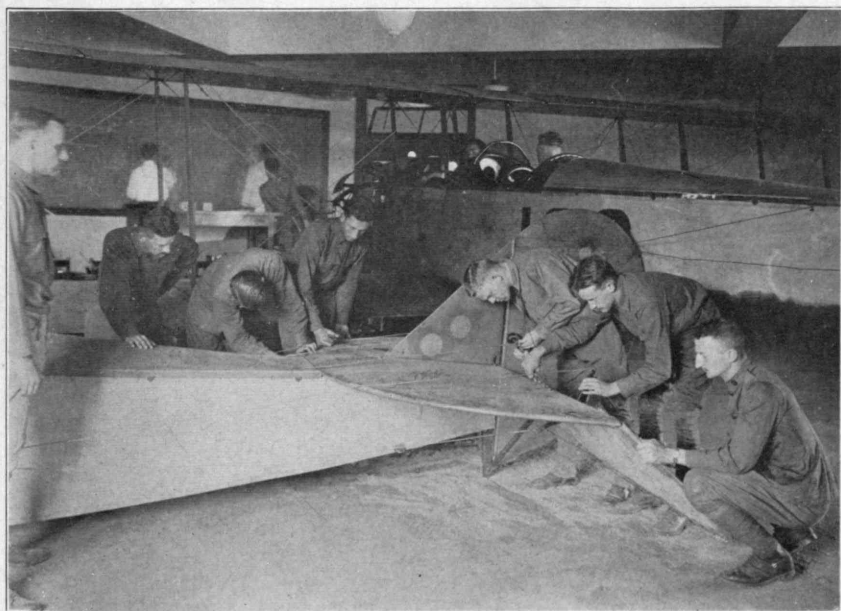
Finally, after getting the approval of the attending surgeon and the department surgeon, the Adjutant-General at Washington was asked for waivers on this disability, which were granted. I was then permitted to enlist as a private in the 27th Engineers, a mining regiment stationed at Camp Meade, Md. I have just spent two weeks at Fort Douglas, Salt Lake City, and am on my way to Camp Meade.

Saw Trask, '06, in Salt Lake City and learned that Ted Parker had gone back to New York. Frank Starr, '12, who has been with the A. S. & R. people, is in South America. Hope to visit the new Tech soon and that I will see you personally.

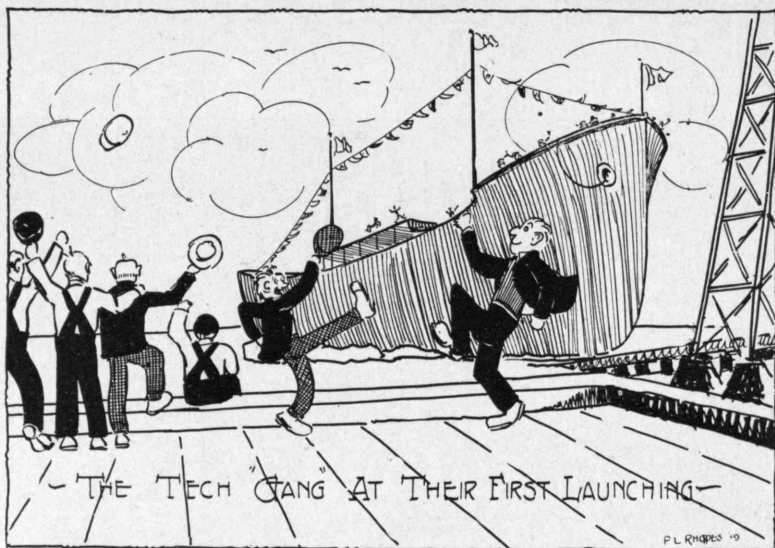
There's the old "never-say-die" spirit, boys!—"Skip" Harrington is now a private in Company F, 301st Engineers, at Camp Devens, Mass., having recently been drafted from Cambridge.—Thorne L. Wheeler, X, is now a captain in the Gas Defense Service, being assigned to the Astoria Light, Heat and Power Company at Astoria, L. I., N. Y. That is the same company that "Bunnie"



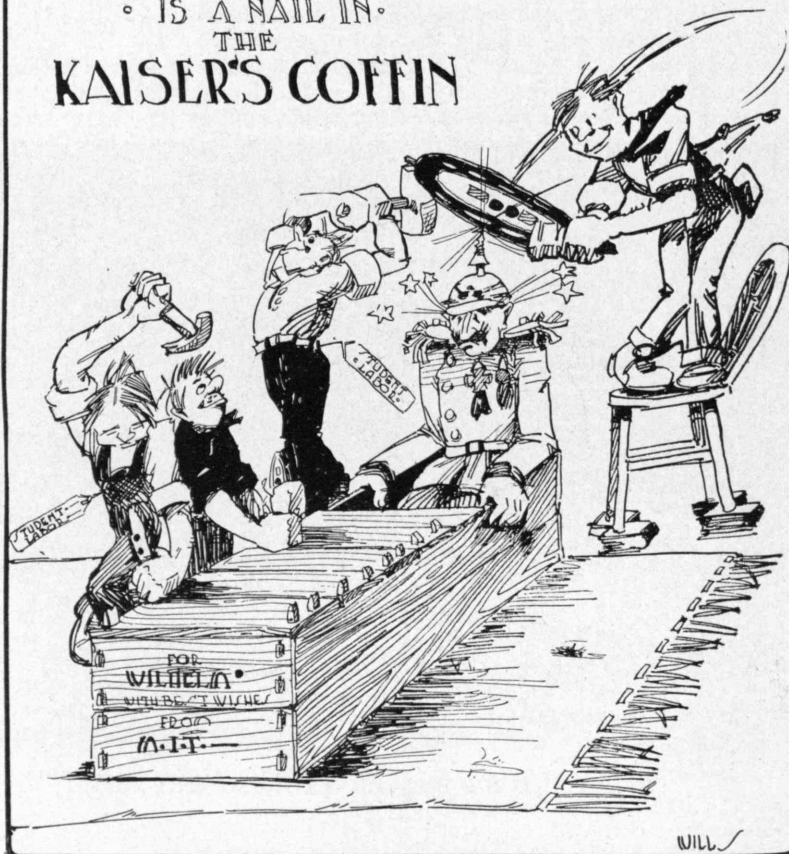
A GENERATION AGO



TO-DAY. TECH PREPAREDNESS—OLD AND NEW



EVERY SHIP • IS A NAIL IN • THE KAISER'S COFFIN



(I. W.) Wilson is stationed with.—As to the previous erroneous inclusion of W. C. West in the Honor Roll, witness the following letter:

You have not heard from me in such a long time that I am not surprised at the notation in the April REVIEW to the effect that I am a member of the Central Aviation Reserve. This organization was effected at the time of the trouble on the Mexican border, and at that time we did a little flying here under the auspices of the Aero Club of Illinois. Both the club and the reserve were disbanded later on, when the government took over the training work.

I am sorry to say that up to the present time [June 1] I have not broken into the service in any way, principally due to the fact that a family as large as mine cannot subsist on anything less than the pay of a colonel, and obviously Uncle Sam is not handing out colonels' commissions quite as freely as he is lieutenantancies, or even captaincies. I am doing a little in the way of war work, however, as I am supplying a great many parts for aeroplanes, army trucks, military tractors, tanks and guns; in fact, the raw material situation just now is such that it is practically impossible to buy steel to be used for anything but war work.

There is nothing at all exciting about the work I am doing, and it will be useless for me to try and give you an interesting letter for the REVIEW, and so you will have to be satisfied with this one.

I have just received a card from Lieut. W. D. Foster, who is in a camouflage unit, Co. B, 40th Engineers, stating that he has arrived safely in France.

Bill, by the way, is in business for himself in the Windy City, listed as W. C. West, Special Metal Products, 14 E. Jackson Boulevard, Chicago.—The following clipping is from the Boston *American* of May 9:

First Lieut. J. J. Devlin of No. 83 Hunnewell Avenue, Brighton, has been promoted to the rank of captain and assigned to Company E of the 301st Engineers. He is a former Boston English High School boy and graduated from the Massachusetts Institute of Technology in 1911. Devlin is one of the most popular officers in the regiment.

Fine work, Jack, old boy!—Here is a most cheerful letter from Lieut. "Dick" Ranger, VIII, written from the First Corps Signal School, P. O. 703, A. E. F., under date of April 14:

J. D. MacKenzie is a lieutenant in the 185th Canadians (Cape Highlanders) if you don't happen to know it already. There are enough Macs in his regiment to satisfy the greatest Scotchman of them all, so be careful to give the full and complete data when you come to use it.

There is very little new that is happening around where I am; we have got things down now to much of a routine efficiency and make everything go along very smoothly. I am as busy as time all the time, but every day sees things better, and there is considerable satisfaction in helping it grow this way.

They are giving the good old Tommies a hard drive up north, but we all feel rather calm about it all. It just seems to be the last supreme effort. The papers say that some of our boys are with them and if they show the pep they do around here, they will surely get away with the rep. up there.

While the foregoing letter was on the way here, the following clipping appeared in the Boston *Evening Record*:

I met Ralph Chisholm, formerly of the Ranger Company, in Trinity Court, yesterday. Chisholm enlisted in the navy shortly after his business associate, "Dick" Ranger, had sailed for service overseas. Result was the closing up of the Ranger Company's plant.

"Charlie" (See-em) Barker is an enlisted private in the U. S. Signal Corps Radio School, College Park, Md., specializing in wireless telegraphy, and in a recent letter said:

I am now a very private person in the little old army and am located as above, where we are being inducted into the mysteries of wireless telegraphy, drill, hikes and other things too numerous to mention. I might add that here we work—if ever they had courses like this at Tech they would have no customers.

Databoy, Gutzie!—Recently had a card from Donald C. Barton, XII, a private in the Meteorological Service, Signal Corps, on which he said:

I am doing guard duty, armed with a piece of broomstick as a symbol of my office—buck private. Between times I am learning how to compete with nigger porters when I get back and am cleaning out latrines, sweeping casernes, carrying officers' luggage or acting as butcher scullion. Sometime I hope to have a chance to do something more nearly in the line of an engineer, but as yet there has been no chance.

Cheer up, Barton, you're doing your bit!—It was with a feeling of profound sadness that the secretary received a phone message last month informing him of the death of H. B. C. Allison, X. The following clipping from the Schenectady (N. Y.) *Gazette* of May 8 tells its own story:

H. B. C. Allison died yesterday at his home, 11½ Phoenix Avenue, of pneumonia. The funeral will be held in Cambridge, Mass., his former home, and interment will be made in Mt. Auburn cemetery, that city. There will be no funeral services in this city.

Mr. Allison was born August 30, 1890, and was graduated from the Massachusetts Institute of Technology in the class of 1911. In the fall of that year he came to Schenectady and was employed as a chemist in the research laboratory of the General Electric Company. He is survived by his mother, Mrs. H. A. Allison, with whom he lived here.

The loss of such a faithful and popular member of the class will be greatly felt and the secretary assures his bereaved mother that the sympathies of his classmates, expressed in his note to her, are genuine and sincere.—Lieut. Alexander Woodward Yereance, I, and Miss Alice Edna Seitz were married April 20 at Trinity Presbyterian Church, South Orange, N. J. Heartiest good wishes and all good fortune to you both!—Before these notes appear in print, our popular senior-year president, Donald Read Stevens, II, will doubtless have become a benedict, for his marriage to Miss Lois Carver, daughter of Mr. and Mrs. Eugene Pendleton Carver of Brookline, is scheduled for the twenty-fifth of June at the First Parish Church, Brookline. Mr. and Mrs. Stevens will be at home after the eighteenth of July at 78 Belvidere Way, Akron, Ohio. The heartiest good wishes of your classmates are certainly with you, Don, old boy!—In the same category is our old friend "Johnnie" Scoville, IV, for Mrs. Homer Pershing Goff of Crafton, Pa., has issued invitations for the marriage of her daughter, Bertha Neepier, and John Harris Scoville on Tuesday, the second of July. The young couple will be at home after September 15, at Eliza-

beth, N. J., where "Johnnie" is now employed as a shipbuilder with the Bethlehem Shipbuilding Corporation.—Mr. and Mrs. Cuthbert T. Greenleaf announce the birth of a son, Robert Alton, on March 22. More congratulations!—Mr. and Mrs. E. D. Van Tassel, Jr., are rejoicing in the birth of a daughter on April 18. That's fine, Ted! While talking about Ted, let's tell all the news. On June 5, according to the Boston *Evening Globe*, the gentleman ran into and knocked down a woman in Arlington Center. No serious consequences arose, however.—Marshall E. Comstock, VI, wrote recently:

Barbara Helen arrived May 5, weight eight pounds, five ounces. We are all well and happy.

Hearty congratulations, M. E.—"Johnnie" Bigelow, IV, recently sent the secretary a card from San Juan, Porto Rico, saying:

Got that "mañana" feeling and not much time for letters. Building Camp Las Casas for the native draft army. Best wishes to the family. Here two months more, care of Maj. E. C. Steward, San Juan, P. R.

From the Pittsburg, Pa., *Dispatch* the following interesting item is taken:

D. J. Jenkins, fuel engineer for the United States Bureau of Mines, 4800 Forbes street, left Pittsburg last night under orders to join the Twenty-seventh Regiment of Mining Engineers at Camp Meade, Maryland. Friends of the engineer are of the opinion that another month will see the regiment in France. Jenkins has been with the local branch of the Bureau of Mines for two years. He was a graduate of the Massachusetts Institute of Technology. His parents reside in Birmingham, Ala.

Walter Arthur, V, writes that he is located with the Garford Motor Truck Company, Lima, Ohio, as chemist and metallurgist. He has charge of all chemical and metallurgical work and furnace operations.—O. W. Stewart, I, has come to time as usual with "live" news and writes that "Johnny" Wilds, II, has been promoted from assistant secretary and made vice-president and engineer of the Protection Mutual Fire Insurance Company of Chicago. Good for you, "Johnny"! Stewart also mentions meeting J. K. Campbell, I, a few weeks ago when he hit Providence, R. I., on a short business trip from New York. He is looking more prosperous than the average. (I am not sure what that is.) His card reads, Eadie, Freund & Campbell, Consulting Engineers, 7 West 45th Street, New York City.—Did you notice in the April REVIEW that "Chet" Morey, II, is now a member of the executive committee of the Technology Club of Rhode Island?—The secretary recently learned that Roy G. MacPherson, II, is to join forces with the Air Nitrates Company at Muscle Shoals, Ala., wherever that is. He is to be principally engaged for the present in the installation of big air compressors in the big plant which the company proposes building there.—In connection with the Alumni Day planned for Tech Alumni in and about Boston on June 11, in place of the usual alumni activities at Commencement, the secretary sent out one

hundred and sixteen notices with reply cards enclosed asking how many 11-ers were planning to attend and how many would like to go to Nantasket for a frolic that evening. How many replies do you suppose were received? Just exactly fifteen; figure out your own percentage! Well, ten fellows said they were going to attend, and six of these, including friend secretary, wished to go to Nantasket, according to their replies. The day came and was one of June's best, and to the secretary's best knowledge just two classmates showed up, Ed Hall, II, and George Cummings, VI. Ed had said he couldn't go to Nantasket on account of State Guard drill, so George and the secretary went to Rowe's Wharf to wait until 6.30 P.M., the time advertised to leave there. Nobody else showed up, so the two lone sentries stayed in Boston, instead of taking a lone trip to Nantasket. The secretary is certainly at a loss to explain why one hundred and one men could not fill out and send return postals. Space is always left on such cards for items of interest. Where's the old 1911 spirit? Let's hope it's just temporarily dormant in and about the Hub, and as the feller sez: "WRITE TO DENNIE!"

Changes of Address

Charles L. Bartlett, P. O. Box 184, Newport News, Va.—G. Arthur Brown, 313 Hanover Street, Manchester, N. H.—H. F. Dolliver, 3 Pine Street, Belmont, Mass.—J. Howard Dunlap, 17 Rhodes Avenue, Akron, Ohio.—Charles H. Harrington, 87 Grafton Street, Arlington, Mass.—Nathan Levy, 447 Audubon Road, Boston.—E. D. Van Tassel, Jr., Van Tassel Leather Company, Stoneham, Mass. (Is soon to move from Winchester to Newton.)—Edgar L. Woodward, Room 2201, Woolworth Building, New York City.

POSTSCRIPT NOTES

In the fortnight that has elapsed since the first edition of these notes your secretary has learned of but one additional 1911 man in the service, to wit: Lieut. Thomas S. Killion, III, who is reported as with the 329th Labor Battalion at Camp Grant, Illinois.—Ensign J. P. Hart, VI, has been transferred from the academic board of the Electrical School at the New York Navy Yard to that of the school of similar nature at the Naval Operating Base, Hampton Roads, Virginia.—Lieut. H. W. Van Hovenberg, XI, has been transferred from New Orleans to Portsmouth, Virginia, witness the following:

Am sanitary engineer, U. S. Public Health Service, in charge of malaria control activities about the Navy Base and Army Quartermaster Terminals, Norfolk, Va. Am wearing one silver bar (1st lieutenant), working hard and growing thin.

Paul A. Cushman, VI, has changed from Wentworth Institute, Boston, to the University of North Carolina, where he is, as he was at Wentworth, a member of the electrical engineering depart-

mental staff.—The following article on the proper conduct of men entering the service appeared in *The Tech*, dated June 22, and is worthy of republication in these notes both on account of its general excellence and the fact that it was written by Lieut.-Commander H. L. Snyder, '11, IV, who has been in the navy for eight years and is now P. A. Paymaster, U. S. Navy.

Please sit back in your chair and think of the one compound word "clean-cut." What do you mean when you apply it in describing a man? Does it refer to clothes and hair-cut alone, or to action and character as well? You will agree that it applies to the physical, mental and moral man.

Having fully absorbed the descriptive possibilities of the word "clean-cut," you are ready to start in military life as a private or officer, taking for granted, of course, that you have the primal qualities of allegiance and intelligence.

Taking that word "clean-cut" as your measuring tape, you can gauge the propriety of every action and make it a key to every solution of every problem of your personal relation to military life.

First of all, take the physical man. Cleanliness is a sacred tradition of the army and navy, cleanliness to the very limit of surrounding possibilities. A clean shave daily, closely cut hair, clean face, neck, ears, underwear, body, uniform and shoes; these are essential to make you even look like a soldier or sailor or officer. These are "clean-cut" physical qualities. They may save you from death from needless infection of wounds in the battlefield. History has proven that they do.

Then carry our key word forward a step. How does a clean-cut man carry himself? He stands with a habitually straight spine, with weight on both feet, crown of his head high and chin in. I believe so much in the physical cleanliness and carriage, as outlined above, that I am ready to state unequivocally that if he is naturally "nasty" inside, these facts will force him to make good.

Up a step we go to speech. The "mealy-mouthed" man is one who fumbles his words, wears a smile when conditions call for severe brevity, and intends to ingratiate his meaning to his hearer instead of conveying it with sound words. In official speech a man may not unbutton his vest and expand. This relaxation must be saved for the mess table.

Then there are certain expressions in common use which are taboo in military service. One of these is: "All right!" Forget that word. Blot it out of your memory. If you are given a verbal order, answer "Yes, sir," or "Aye, aye, sir," the latter if you are a sailor. If you are the superior in the conversation say, "Very well." If you are coinciding with a superior or acknowledging an order with "All right," you may be informed that you are "damned right it's all right and everything I say is all right."

Never say: "I don't know." It may be true that you don't know, but maybe you are expected to know. Better answer, "I will find out immediately, sir," or "I cannot say off-hand, sir." If you are not quite sure of your information it is permissible to say: "I am reasonably certain that such-and-such is the case, but will verify it immediately."

A last word—bravery. It has been better said by a Frenchman than I could say it, "True bravery consists of being able to do, without observers, what one would be capable of doing before all the world."

Changes of Address

Charles M. Barker, 407 Seaver Street, Dorchester, Mass. (Please forward).—Paul A. Cushman, Electrical Engineering Department, University of North Carolina, Chapel Hill, N. C.—John P. Hart, Electrical School, Naval Operating Base, Hampton Roads, Va.—Lieut. Thomas S. Killion, 328th Labor Battalion, Camp Grant, Ill.—Lieut. Raymond H. Lord, 5036 Winthrop

Avenue, Edgewater Station, Chicago, Ill.—Lieut. John L. McAllen, Company B, 602d Engineers, Camp Devens, Mass.—August C. Metz, Apartment 19, Eastern Monclova Coahuila, Mex.—Frank G. Smith, 3137 4th Street, N. E., Washington, D. C.—Chauncey B. Smythe, 24 Colonial Apartments, Elyria, Ohio.—Lieut. H. W. Van Hovenberg, 226 High Street, Portsmouth, Va.—Lieut. Russell D. Wells, 6320 Delaware Street, Chevy Chase, Md.

The following letter has recently been received from Billy Poland, who is bringing added glory to the class of '90 and Tech, in his work for the Belgium Relief abroad, where he has been for the past two years. There is nothing more acceptable to a man on the other side than letters from home. Get busy, fellows, and drop a line to Billy.

3, London Wall Buildings,
London, E. C. 2, England,
31st May, 1918.

My dear Gilmore: Your letter of April 29th arrived in due time. As soon as I came to the postscript asking if a Christmas box addressed to me had been received I remembered a box which came without any explanation and which I had carefully put aside until some account of its presence came to hand. We often get these boxes and requests later that they be sent to some one. I immediately opened it and have been having quite a Christmas party ever since as a result. It is very hard to get chocolates here now and chewing gum has for long been entirely unknown, so, with the cigarettes, soap and other things, we have been having quite a festival. You were certainly very kind to remember me.

I sent out to see if any of the "Lusitania" medals you speak of could be found. You are under a misapprehension, I think, in regard to these. The medal was struck off in Germany to commemorate the prowess of the Germans in sinking the vessel and murdering women and children. A very rough replica was cast here, of which I send you one of the few remaining. It finally sank into the Huns' intelligence that some persons in the world might not consider their action quite so admirable as they did themselves and orders have been given in Germany that all these medals should be destroyed.

In regard to the work that we are carrying on here, the Commission for Relief in Belgium is not quite an undertaking for the feeding of Europe. We find quite enough to do in attempting to get supplies to the 9,000,000 people of the occupied territories of Northern France and Belgium. This requires about 130,000 tons of foodstuffs per month which costs roughly \$25,000,000. The other day we found the total of our distributions had run over the \$500,000,000 mark. Our overhead cost in carrying on the work is a little less than one-half of 1%. This is due to organization, volunteer services and many valuable concessions that are given to us. It is a never ending struggle to keep the work going as the assisted governments, faced with the strain of meeting the great German onslaughts, are so occupied with rushing men and munitions to the front and carrying on the absolutely necessary *ravitaillement* of Italy, France and Great Britain, or, as the common expression is "winning the war," that the helpless populations of the invaded territories are lost sight of unless we are able to force their needs on the attention of the higher officials who control food, money and ships. We have to deal successively with the French, British, United States and Dutch governments and, through intermediaries, with the German officials—work which could not be carried out by other than an independent commission like ourselves. We have to be shopkeepers, purchasing agents on a great scale, shipowners and operators, diplomats and office boys, successively, but in some way we have been able to keep the work going.

I am more than delighted at the splendid way the Institute is coming forward in war work. I hope you will keep me advised of its activities. I also congratulate you most heartily on the important part you yourselves are taking in winning the war.

Sincerely yours,

W. B. POLAND,

Director for Europe, Commission for Relief in Belgium and Northern France.

1912

RANDALL CREMER, *Secretary*,
7 Circle Rochelle Park, New Rochelle, N. Y.

The second year of the war finds us scattered far and wide. It is highly gratifying, though not at all surprising, to see that 1912 has responded to the call as promptly and as thoroughly as all the rest, helping to push the good work in all fields. Everybody happy, in fact, but the secretary, who finds himself in a fog on a sea of address changes. Restoring order promises to be a hard pull, but we hope to reach shore safely with the coöperation of all the class. Take this as a direct personal appeal to do your utmost to assist in rounding up the missing ones, and consider every one missing (of course, in reality it is the secretary who is lost).

Send in your own address and present occupation together with that of all other classmates you see, and pass the same request to them. The duty is urgent, so don't neglect it. We must catch up by the November issue of the REVIEW, and that is not as far off as it sounds.

Following is a list we know to be incomplete, but representing every one reported in the service up to date:

Richardson Ayres, 1st Lieut., Coast Art. Corps.—Frederick Thornton Alden, Priv., Depot Brig., N. A.—Jerome Anthony Appelquest, Avia.—Henry Andrews Babcock, Priv., Avia. S. Sig., E. R. C., A. E. F.—Russell Thomas Bailey, Capt., Co. 2, E. O. T. C., Fort Leavenworth, Kan.—Volant V. Ballard, Sergt., Co. C, 502d Engrs., A. E. F.—Harold B. Beebe, 2d Lieut., 137th Inf., A. E. F.—David F. Benbow, Capt., Ord. Dept.—Arthur Thomas Bennis, Seaman, 1st Naval Dist., U. S. N. R. F.—Harvey Smith Benson, 1st Lieut., Gun Div., O. D., U. S. A.—J. A. Boyer, Corp., 324th Inf.—Franklin N. Breed, U. S. A., Camouflage.—Samuel H. Brown, Jr., Asst. Insp., U. S. N.—Frank W. Caldwell, Airplane Propellor Expert, Engr. Dept., Sig. Corps.—Herbert H. Calvin, 1st Lieut., Ord. Dept.—Edward Canfield, Jr., Maj., Q. M. C., U. S. A.—Charles H. Carpenter, 1st Lieut., Ord. Dept.—Harry H. Catching, Sergt., Avia. S., Sig. C., 144 Aero Squad.—Jay H. Cather, 1st Lieut., Avia. S., Sig. Corps, C. O. of 203d Avia. Constr. Div.—Leroy W. Chandler, 1st Lieut., Avia. Mach. Gun Officer, O. D., U. S. A.—Howard F. Clark, Capt., Engrs. Corps, A. E. F.—Wil-

liam H. Coburn, 1st Lieut., Gas Def. Serv., San. Corps.—Harold B. Davis, Lieut., Sig. Corps, A. E. F.—Joseph Desloge, Am. Red Cross Ambulance Work, Italy.—Harris E. Dexter, Lieut., 30th Engrs., Gas and Flame, E. O. T. C.—Ralph N. Doble, 1st Lieut., Ord. Dept.—Charles E. Dodge, 2d Lieut., O. O. R. C., Sup. Constr. Div., Washington, D. C.—Pierre Drewson, Capt., 14th Co., 4th Tr. Bu., 155 Depot Brig.—Boyd Dudley, Jr., Capt., Insp. Sect., O. O. R. C.—Gurdon I. Edgerton, Avia.—Archibald M. Eicher, 1st Lieut., Engrs. Corps.—Rupen Eksergian, 1st Lieut., Ord. Dept.—Christopher Fallon, Engrs., U. S. A.—Harry F. Ferguson, 1st Lieut., 115th Engrs., E. O. R. C., A. E. F.—Earl E. Ferry, Seaman, U. S. N., R. F. C.—Harold R. L. Fox, Capt., Adjut. 4th Corps, Royal Engrs., B. E. F.—Rudolph H. Fox, 1st Lieut., Ord. Dept.—Arthur W. Frank, Lieut.-Com., Constr. C., Navy Dept.—Francis R. Fuller, Capt., 39th Inf., U. S. A.—Vincent L. Gallagher, U. S. N., Avia., M. I. T.—Charles F. Goodrich, 1st Lieut., O. R. C.—Herbert W. Hall, 1st Lieut., Detached Service, 7th Regt., C. A., O. R. C.—John Hall, 1st Lieut., San. Corps, Camp Eustis, Lee Hall, Va.—Hugo H. Hanson, Capt., Gas Def. Serv., San. Corps.—Joseph E. Harrington, 303d Inf.—C. F. Higgins, 2d Lieut., 302d Inf.—Charles F. Hobson, Lieut. (Jr. Gr.), U. S. N. Coast R.—Edwin C. Holbrook, 1st Lieut., 104th Engrs., E. O. R. C.—Oliver W. Holmes, Coast Art. Corps.—Edmund L. Homan, 1st Lieut., 302d Engrs., Co. A, E. O. R. C.—Gerald B. Howard, 1st Lieut., 17th R. Engrs., A. E. F.—Leslie M. Huggins, 1st Lieut. Inf., O. T. C.—Henry Adams Johnson, Ch. Insp., O. D., U. S. A.—Harold E. Kebbon, Maj., Q. M. Dept.—Gerald M. Keith, 1st Lieut., Engrs. Corps.—Alfred F. Kenrick, Co. B, 101st Engrs., A. E. F.—Francis H. Kingsbury, 1st Lieut., 306th Engrs., E. O. R. C.—Walter W. Lang, Priv., N. A.—William H. Lange, 2d Lieut., 306th Inf.—G. Lynch, 1st Lieut., Coast Art. Corps.—Philip Gatch Lauman, Lieut.-Comdr., Constr. C., U. S. N.—Max Levine, 1st Lieut., San. Corps, N. A.—James B. Little, 2d Lieut., 317th F. A.—William C. Lynch, 1st Lieut., Ord. Dept.—David J. McGrath, 1st Lieut., Gas Def. Serv., San. Corps.—William F. McKnight, 1st Lieut., Med. Res. Corps.—Karl McKenney, Capt., Coast Art. Corps.—Harold C. Mabbott, 1st Lieut., Hdqrs. C., 58th Regt., C. A. C., U. S. A.—Harold G. Manning, 1st Class Sergt., O. C., N. A.—E. M. Marshall, 2d Lieut., Ord. Dept.—Edward C. Mayers, Q. M. Dept.—Hamilton Merrill, 1st Lieut., Gas Def. Serv., San. Corps.—Edward Montgomery, Capt., C. A. C.—Edmund B. Moore, 1st Lieut., O. D.—Walter F. O'Brien, 1st Lieut., Ord. Dept.—Frank J. Osborne, 1st Lieut., San. Corps, N. A.—Henry M. Otis, N. A. Detach., N. R.—John M. Pettingill, Avia. S., Sig. Corps, O. R. C.—Oliver D. Powell, Batt. F, 309th F. A.—Theodore R. Prouty, 2d Lieut., 301st Inf., I. O. R. C.—Roger L. Putnam, Ch. Btsw. Mate, U. S. N. R.—Allen W. Reid, C. A. C., O. T. C.—Walter M.

Ruby, 1st Lieut.,⁵O. O. R. C.—George S. Sawyer, Sergt., Co. A, 504th Engrs.—Stewart J. Schofield, Lieut., Canadian Inf.—Seth H. Seelye, Priv., Co. G, 23d Engrs.—Frederick J. Shepard, Jr., 1st Lieut., Ord. Dept.—Wright Shuttleworth, Capt., Co. C, 14th N. Y. Inf.—Vernon G. Sloan, Avia.—Alfred N. Smith, Co. C, 302d Mach. Gun Bat.—Harold K. Smoot, Ens., U. S. N.—Cyrus F. Springall, Ens., U. S. N. R.—Clarence A. Stewart, Priv., Co. C, 14th Ry. Engrs.—Richard C. Stickney, Capt., 34th Inf., U. S. A.—Ralph F. Symonds, 1st Lieut., Ord. Dept.—James A. Tillinghast, Ens., U. S. N. R., U. S. S. *Wisconsin*.—Daniel A. Tomlinson, 1st Lieut., Instr. in Mapping, C. A. O. R. C.—Walter H. Triplett, Sergt., Batt. A, 340th F. A., N. A.—Arthur W. Underhill, Jr., 2d Lieut., E. O. R. C.—James H. Ward, Cadet, 16th Foreign Detach., Avia. Sec., Sig. Corps.—Harold George Watkins, Master Engr., 1st Bn., 14th Ry. Engrs.—Everett B. Wettengel, R. O. T. C.—Henry C. Williams, Hdqrs. 76th Div.—Howard D. Williams, Sergt., Batt. D, 64th Regt., 2d Bn.—Roy P. Williams, Q. M. C.—Robert H. Woods, 1st Lieut., Ord. Dept.—Alexander W. Yereance, 1st Lieut., Engrs. Corps.

Any additional names or elaborations to this Roll of Honor will be given a glad welcome. And we want to hear from all of these boys, and learn what adventures have befallen them. Up to date, very few have turned in any information. Lieut. Rudolph Fox writes us that he has just been transferred from Washington to Springfield. He says:

This post is a mighty pleasant one, here at the Springfield Armory. My work is supposed to be of a research nature on steels, particularly for rifle purposes. Captain Bellis, M. I. T., '13, is in charge of the metallurgical laboratory, and we have two Columbia men, one from Worcester Tech, and one Cornell man in our group.

Am taking a small house owned by a Mr. Vanderbilt and located on Biltmore Street for July and August and expect to start bachelor housekeeping here then. The place is decidedly less imposing than you might gather from all the "Bilts," belonging to an artist and teacher in the local high school.

Lieut. Dave McGrath, now of the Gas Defense Service of the Sanitary Corps, writes the following letter:

It has been called to my attention that we have all been pretty negligent in the matter of writing to the class secretary, with the result that the 1912 class notes, between the 1911 and 1913 dope in the REVIEW, reminds one of the more-or-less microtone sections of ham in the dairy lunch sandwiches.

Now if this impalpable lamina fails to grow husky and thick, even at the expense of becoming deviled ham, it is your fault, 1912. The secretary is supposed to do the deviling. Pardon the interruption, David, go ahead.

I have recently been approached, or rather reproached, on this matter by one of the scouts you started out to stir up.

I have been traveling around quite a bit the last eight or nine months, and it begins to appear that one just can't dodge Tech men, as I've seen 'em on nearly every train I've been on, and in every city. Not necessarily 1912 men, of course, but men whom I've known or seen before at the 'Stute.

Our old-time friend and one-time president, Don Kemp, "than whom," as the feller once said, "there is no than whomer," is at the present writing, sojourning in New York, trying to decide which one of a half-dozen high salaried positions in the munitions industry he will take. Don has offered his services to Uncle Sam, but the army medical experts must be sore on him, for they turned him down. One look at his broad shoulders and smiling countenance ought to convince any one that he's as fit as any of us.

Bobbie Wiseman, VI, is an electrical research expert for the Western Union Telegraph and Cable Company, helping them to perfect their equipment so as to be able to handle the flood of business some of the rest of us are dumping onto them. Bobbie wears his Doctor of Engineering degree very modestly.

Bill Lynch has been around the Tech Club of New York occasionally. Lynch, Kemp, Wiseman and myself have had many little get-together dinners here during the last few weeks.

Capt. Hugo Hanson, X, is making a big "rep," I understand, in chemical research work. After seeing service in France he has been brought back here for highly important work.

Rupen Eksbergian is a first lieutenant in ordnance, and finds an outlet for his mathematical ambitions working out projectile and big gun problems, which you and I couldn't even understand, let alone solve.

Hamilton Merrill and Bill Coburn are both first lieutenants in the Sanitary Corps, Gas Defense Service, and are helping to make the best gas masks in the world for the boys overseas.

I have sought and sought in vain to find just one 1912 man in the army with anything less than a second lieutenantcy. Am seriously thinking of seeking distinction and glory by resigning the "bomb-proof" job I now enjoy, and enlisting in the army as a common everyday private. Does any one want to join me?

But David is way off on this last. There appear to be quite a few who didn't wait for commissions. One letter, very short and sweet, comes from "V. V.'s Eyes" Ballard. He writes in this form:

V. V. Ballard,
Sgt.
Co. C.
502d Engineers
France, 4/28/18
With a service Bn.
All kinds of construction
bldgs.
railroad, highway,
etc.
Pvt.
duty sgt.
mess sgt.
Good living & quarters
Apply my Tech training to getting out
of work—no other
use for it, Put a
note in the REVIEW for Bill
Bird to write me—have not his
address.

You've guessed it, it's that *vers libre* we have been hearing about, and very good stuff, too, as you may have observed. Evidently the boys are acquiring Culture (with a "C") among other sciences.

Harold B. Beebe enlisted in the 101st Engineers when war was declared, and was detailed to Company B, serving as a private in the construction of Camp Devens at Ayer, Mass. He was made a

corporal last September and went to France, where he was soon picked out to go to officers' training school, and was in the front line for three weeks during observation course. Early this spring he received his commission as 2d lieutenant, in the 137th Infantry, and is now attached to the Headquarters Company of the 35th Division, billeted with his colonel.

The following letter, dated April 22, Somewhere in France, comes from Howard Clark, now a captain in the Engineers:

Fortune was kind enough to land me safe again in France. The trip coming over was a long one, and not as enjoyable as the one I made just after graduation with Carl Rowley, Dick Ayres and Foxo. Not because I was seasick, however, it was just too cold to do much but seek warm spots.

This time, too, there seems to be more necessity of abusing the French language. I never succeeded in doing it gracefully, somehow. Nevertheless, *pomme-de-terre soufflé* was about the first good morsel I could think of, and I surely did enjoy them at one of my stations. But they keep me on the move constantly and now it is impossible to get anything like it. In fact, we confine our eating strictly to the officers' mess, which is not so poor either. But a little *vin blanc* goes well without food when we are occasionally allowed in town.

I have been billeted in several rather interesting places. One was an old chateau with wonderful mirrors in the dining salon, still unbroken by some chance, and beautiful stone stairways. The rooms were stripped of all furnishings, but it was quite evident that in the dim pre-war days the place must have been magnificent.

I have reconnoitered about some of the small villages we have been quartered in, and find it fascinating to observe the changes in ordinary life. It's hard to realize that this is indeed that same care-free France.

Haven't seen any other 1912 men over here at all, though there must be many of them. If any of them that care to do so will write me in care of the General American Post Office, we can get in touch and perhaps see something of each other.

But most of us seem to be still in the U. S. A.—Hamilton Merrill was commissioned first lieutenant in the Sanitary Corps last August. He was stationed in Philadelphia for a time, then transferred to the Gas Defense Plant in Long Island City to superintend the manufacture of gas masks. The latest report is that they have perfected a mask to be worn by carrier pigeons over the battle area.—M. B. Brownlee, Jr., is training at Camp Mead, Md. He tells us he was eager to join the service at the outbreak of the war but was prevented by important business obligations. Never mind, Malcolm, you'll catch up.—Alan Reid was last heard of in the O. T. C. at Camp Sheridan.—Doc Sloan is reported back at the 'Stute studying aviation at the Navy Ground School.

Gerald Keith was commissioned a second lieutenant in the Engineers at the training camp in Washington, and went over last December. After becoming familiar with the construction methods practiced in France, and incidentally winning his Sam Brown belt and first lieutenantancy, he has come back to instruct in the training school at Camp Lee, Virginia. We hear that he has just been transferred to the Regular Army. For all of which, Jerry, accept our congratulations.

The marriage of Antonio Romero Moreno and Miss Josefina Barceló has recently been announced.

The New York *Herald* of June 16 contained the following rather interesting item:

Miss Mary Virginia Duncombe, daughter of Mr. and Mrs. Herbert Sydney Duncombe of 181 East Fifty-Fourth Street, was married to Lieut. William Charles Lynch, U. S. A., Ordnance Reserve Corps, at noon yesterday in St. Thomas Church. The bride was attended by Misses Rita Harwood, Dorothy Moore, Jean Harper and Katherine Hill. Miss Duncombe was a graduate of Smith College, class of 1916. Lieut. Herbert H. Calvin of Salt Lake City was best man. The ushers were Herbert Duncombe, brother of the bride, and Lieut. Rudolph H. Fox of Hartford, Conn. Lieutenant Lynch was graduated at the Massachusetts Institute of Technology, class of 1912. Both Lieutenants Calvin and Fox were his classmates there.

Mr. and Mrs. George W. Mitchell announce the marriage of their daughter Mildred to Frank E. Starr on Tuesday, March 12, 1918, at Antofagasta, Chile.

There's never an end to this matrimony business. Mr. and Mrs. Arthur Seitz announce the marriage of their daughter Alice Edna to Mr. Alexander Woodward Yereance, Lieutenant Pioneer Engineers, U. S. A., on Saturday, the twentieth of April, 1918, Trinity Presbyterian Church, South Orange, N. J.

And this is almost as bad, from the Boston *Transcript* of April 23:

The engagement of Miss Dorothy Littell of Newark, N. J., to Norwood Appleton Hall, formerly of Revere, is announced. Miss Littell is a normal school graduate. Mr. Hall, the son of Mr. and Mrs. William E. Hall, is a graduate of the Massachusetts Institute of Technology, class of '12. He is now in the Navy Department, Bureau of Construction and Repair, in Washington, D. C.

Here is what Norwood has to say for himself:

I haven't been doing anything very exciting since I left Tech. In February of this year I left the Sprague Electric Works, where I have been since graduation, and came to Washington as mechanical engineer in the Bureau of Construction and Repair in the Navy Department. I am in the Auxiliary Machinery Section and we handle steering engines, capstans, windlasses, winches and such machinery on all of the vessels operated by the navy. Of course, with the present navy program we have plenty to do.

I haven't located very many 1912 men here. There have been two Tech meetings since I have been here, but only a very few '12 fellows were at either meeting. At the last Tech gathering a picnic was planned, and although it hasn't materialized yet, I think it will before many moons go by.

I see Harold Kebbon's name, or I suppose I should say Major Kebbon's, in the paper quite frequently here in connection with the building of Camp Humphreys, which he had charge of, but I haven't had a chance to see him yet.

With the war spirit in every one's veins, it is very hard for us poor married men to stay at home and stick to our knitting. I was talking to Johnny Hargrave the other day in New York. He was on for a convention of hardware manufacturers—Johnny has been running the Cincinnati Tool Company ever since graduation—and had some interesting things to tell in connection with the demands of the war on the metal industries. Saw Charlie Cary for an instant, the other day, too. He has just accepted a good position with the E. I. du Pont de Nemours Company, at their Brandywine works.

This from Carl Rowley:

The Tech men who are left around Cleveland and not in service—few they are, too—are busy on various kinds of war work and, I believe, all wishing that we might do something big to enhance the product of "Hun Fertilizer." As you probably know, Arch Eicher is in France, where he has been employed by Stone & Webster in the construction of arsenals. This work is about completed, and he has made application for a commission in the Engineer Corps. I should not be surprised to hear any day that he is now in active service.

Needless to say, we are all ashamed that Ohio is wet, while most of the states surrounding us are dusty. However, our Cincinnati members have promised faithfully that they will not indulge in anything more than "stewed chicken."

You see my stock of news is not very considerable. Remains but one little item: My daughter, the class baby, is a bouncer, and I know would be re-elected if it were necessary.

What Carl does not say is that he has been doing some exceptionally fine work for the H. W. Johns-Manville Company. As we all know, he has been acting for some time as secretary and treasurer for the Technology Club of Northern Ohio.

And last, here's another "cit" (I wonder if a prof. is really a cit?) who seems to be doing his bit, or rather two bits—Weeny Schell, who writes en route, with hardly time to put in his periods.

I wish that I might have more of interest to tell you concerning the class, but it is only too true that I have been completely submerged in the whirlpool of a sort of dual existence which I have been trying to function in, which has absorbed all of my time and attention to the detriment of other activities, notably the treasurership of the class.

I am spending a portion of each week at Technology with the presentation of the subject on business management to the students of Course XV. The remainder of the week finds me with the American International Shipbuilding Corporation at Hog Island, where I am trying to be of assistance in the work of industrial engineering.

The staggering immensity of the job at the Island constantly challenges the powers of imagination and appreciation, and to quote Assistant General Manager I. W. Connell, '02, it makes you feel like "a bedbug under a horse blanket."

The work at the Island is a constant source of inspiration, and, to my mind, a wonderful tribute to American resourcefulness and fearless achievement under heavy odds.

You will be proud to know that there are many Technology men on the Island and it has been a great source of satisfaction to see how the engineering policies as advanced by Technology have stood the test and won out. Time after time great problems have arisen, having no precedent to which to refer, with no empirical "rules of thumb" to offer a means of solution, of a magnitude which would not permit of comprehensive comparison, and the Tech man has laid his comparisons on the shelf, thrown his handbook under the table, taken a sharp pencil and some fundamental principles, and got the answer.

S. C. Sargent of our class is doing some very important work there, having charge of hull construction over twenty-five of the shipways. R. R. Langee is also at the Island with the Production Department.

Harvey Benson is with the Ordnance Department as first lieutenant and is busily inspecting hand grenades throughout the country. Ralph Symonds is also with this department as is F. J. Shepard. I have seen them all within the last few weeks and they are on the job in true Tech man style.

"Tod" Sloan dropped into my office at the Institute a short time ago. He is naval aviating at the ground school here, and as I talked with him, I couldn't help thinking what a real cheerful time some baby-killing, bomb-dropping Hun is going to have on his way back across the lines when Tod cavorts out of a cloud with

his tongue between his teeth, a hitch in his belt, and a full round of cartridges in the Browning gun.

I also saw Edgerton marching by with the aviators a short time ago, but regulations prevented more than a smile and a nod.

Ward Gere, who you remember managed the first Tech crew, is at the United States Cartridge Company in charge of one of the most important departments there and he is certainly turning out the work for the boys "over there."

I met Johnny Lenaerts on the train a short time ago. He is doing some electrical work for one of the large shipbuilding plants along the seaboard and seemed to be mighty busy.

I also saw Kenneth Cartwright en route to Wilmington, Del., on munitions work perhaps a month ago. I was mighty glad to run across him again, for you will remember at the big reunion he was forced to leave because of sickness, and it seems that malarial fever finally developed and he had quite a serious time.

Well, this is about the extent of my news. And by the way, please notify the class that if there is anything around Technology that a 1912 man wants outside of a degree or deferred classification, if he will write me, I'll try to get it for him.

First we'll have to salute Major Kebbon, Constructing Quartermaster at Camp A. A. Humphreys, Virginia. Keb never seems to pause to tackle the small things of li—but read for yourself.

Your letter, June 21, came five minutes ago and I am doing just as you say, namely, writing you at once and not giving myself the chance to forget to write later.

It has been a little over a year now since I entered the Construction Division of the War Department, and I have been engaged on many interesting projects since that time. Last year during the summer months in Washington, I constantly encountered men from our class, and Dave Benbow and myself received our commissions practically the same date. I was very pleased to receive a captaincy in the Engineer Corps and Dave went into the Ordnance Department. Howard Cather was working then for the Signal Corps on construction work, and we had several parties together. Fritz Shepard came to the city later as a lieutenant in the Ordnance Department and has been doing interesting work in connection with the production of hand grenades. Dick Wallace is in the architectural branch with the hospital section of the Construction Division, and I meet him occasionally on my trips to Washington. Gurdon Edgerton writes that he is attending a ground school in naval aviation and is very enthusiastic about his work.

There are a great many more of the fellows that I have met that I cannot think of tonight, but down here at Camp A. A. Humphreys in Virginia, the construction of which has been under my charge, I ran into Metcalf, who is now a captain, and who assumed charge of the direction of auto trucks, which carried materials for our construction work from the railroad station to the camp, and several days ago whom should I see saluting me but Lieutenant "Rube" Doble.

Camp A. A. Humphreys is a camp accommodating 17,000 men at the present time and all of them are engineer troops, who are being trained here in the final stages of engineering activity before being sent to France. I came here in the middle of the worst winter that Virginia has ever experienced and started work on January 15, 1918, in the midst of a primeval forest, five miles from the nearest railroad station and thirteen miles from Alexandria, from which point I was forced to transport all my material by motor truck. From that date to this, the camp has grown slowly but surely, and a complete water and sewer system, filtration plant, electric transmission lines and other utilities have been installed. But it has been a long, hard fight and just as I was beginning to see a leave of absence in sight, word comes that the War Department intends to double the present capacity of the camp, which probably means my staying right here until fall.

We were very much honored about a month ago by a visit from the Secretary of War, the Chief of Staff and the Chief of Engineers, who formally took over the camp, although we have been receiving troops since the erection of the first bar-

racks, so great has been the demand for engineers. They are a fine lot of men, the best in the service, I believe. I received my majority in March.

From 1st Lieut. Harvey S. Benson, Ordnance Department:

For some months I have been acting as an inspection supervisor on hand grenades, and since I cover the whole country, my address changes about three times a day. Therefore, my best bet for mail is 1462 Belmont Street, N. W., Washington, D. C., marked "Do not forward." Then I am almost sure to get it in less than three weeks.

As you might infer, I go too fast to see many people on the way, nevertheless, I have run across one or two 1912 men. Bill Lynch is an inspection supervisor in the Ordnance Department, on adapters. H. H. Calvin is an army inspector of ordnance stationed in Wilmington, Delaware. Fritz Shepard is a lieutenant in the engineering division of the Ordnance Department, and is at present located in Washington. W. M. Ruby is a first lieutenant in the Ordnance Reserve Corps, and is stationed at Frankford Arsenal, Pennsylvania.

EPILOGUE

Lest the gentle reader should labor under the misapprehension that his humble secretary has just awakened (partially, at least) from a deep slumber extending through the four years just past, allow us to submit without further apology the following copy of a letter sent by himself from Chile, which for some reason apparently failed to reach its intended destination. If, however, your faith in him is still good, consider yourself a censor, and write "Deleted" over the following:

MINAS TOFO, LA HIGUERA, COQUIMBO, CHILE,
March 16, 1916.

Dear Pete: Shortly after seeing you last June, my wife and I set sail for Chile, going to Panama on the United Fruit Line, stopping one day in Havana. We spent eight days on the Isthmus, finding that scarcely time enough to see everything of interest there, and left Colon on the S. S. *Palena* of the Compañia Sud-Americana de Vapores, passing through the Canal to the Pacific, then southward. The greatest surprise of the trip was to find aboard three fellows I knew at Tech, two of our class, Hammond and "Fat" Brown, and Schmucker, 1915, all Course III. They were bound for the Braden Mines at Rancagua, Chile, where I understand there are at present some eight or ten other Tech men. Besides them, were two other fellows headed for the same destination and several bound for the mines in Bolivia. Altogether, we had an unusually congenial crowd of young people, and enjoyed the frequent stops in the small ports along the coast.

The first glimpse of South America is in Ecuador, three days out of Panama, when the steamer follows up the tidal estuary of the Guayaquil River as far as Guayaquil and anchors in midstream. No passengers are allowed ashore for fear of being held in quarantine later on in Peru, but the natives swarm aboard selling chocolate and cigars and "Panama" hats, which are in reality all made in Ecuador. The surrounding country is low and swampy, covered with rank tropical vegetation—just the place for mosquitoes. Not many years ago Guayaquil was known as the "Pest House of South America," and the fear of yellow fever still lingers there, but through the cleaning up administered by the J. G. White Engineering Corporation a wonderful improvement has been made in sanitary conditions. We were fortunate in having an exceptionally clear day, for off to the southeast could be made out the snowy cone of Chimborazo, over fifty miles away.

Next day we dropped anchor off Payta, the most northerly port in Peru. From here to the end of our trip at Coquimbo, something like 2500 miles, stretches what is probably the most desolate coast in the world. The main ridge of the Cordilleras runs parallel to the shore, varying from forty to a hundred miles inland. The trade winds in the upper strata, coming almost invariably from the southeast, condense

the clouds from the humid Atlantic Coast region on the eastern slopes of the mountains. As a result, the short western slope is dry. Rain, in fact, is practically unheard of. Lying as it does nearly all in the tropics, the region would be an uninhabitable furnace were it not for the cold Humboldt current coming up from the Antarctic Ocean. This keeps the climate uniform for all seasons—pleasantly warm in the sun, always cool at night. Then every few hundred miles along the shore a little stream makes its way down from the snows of the Andes, watering a strip of valley on either side, forming a veritable oasis in the desert.

But in other ways nature has been very kind, particularly in regard to mineral deposits. Peru produces a considerable portion of the world's copper and silver, while practically all the wealth of Chile lies in her copper and nitrates. Neither country as a whole profits directly from these natural gifts, however. The Peruvians seem to be a rather indolent people, lacking in energy and inclination to keep up with the times. Even their capital, Lima, once known as the "City of Kings," seems fifty years or more behind our civilization. The Chilians, or Chilenos, as they call themselves, are much more progressive, but appear entirely lacking in incentive to perform difficult work. Most of their energy is expended in the field we know at home as "graft," and in this particular line they can probably open the eyes of most any of our bosses. So the foreigners operate their nitrate fields, while the Chileno is content with levying a heavy export tax, which enriches not the country as a whole, but a circle of political operators. None of these people seem to have any love for the American, or Yankee, as they know him, but it is gratifying to see that their respect is deep. There are some lasting monuments to American energy along the east coast—the wonderful railroads of Peru and Bolivia, climbing to altitudes higher than that of Mont Blanc and the immense mining developments of Chile.

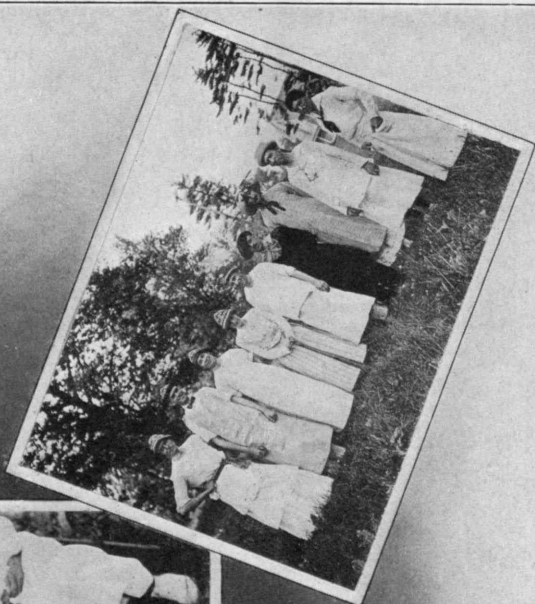
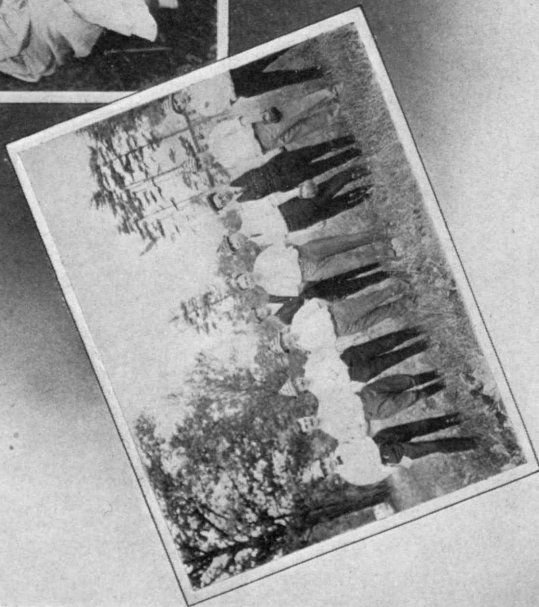
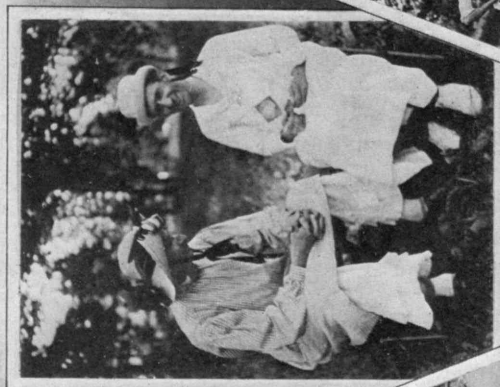
Just before reaching Payta the ship passes Talara Point, where the oil fields of the Standard Oil Company are seen, a forest of well derricks. After stopping at a few unimportant little places, we come to Callao, the principal port of Peru. Here is a well-protected harbor, an unusual thing on this coast. In fact, for 3000 miles south of Panama there are only two real harbors, Callao and Mejillones, in Chile. At other ports a ship simply rides at anchor a mile or so from shore, and cargo is taken on and discharged by lighters, which the natives handle with long sweeps. Fortunately the sea is quite smooth, otherwise this would be impossible. At Callao begins the Central Railroad of Peru, which runs eastward through Lima, about ten miles distant, then up into the heart of the Andes, connecting with the Cerro de Pasco Railroad which penetrates into the rich copper district on the far side of the continental divide.

Very little change is noticeable along the whole Peruvian coast down to the boundary just below Mollendo—a series of barren hills of rock and sand, devoid of any vegetation whatever. Chile presents a little more variety. From Arica at the northern extremity down to Antofagasta, a distance of about 500 miles, stretches a high bluff of sandy clay rising boldly from the sea to an altitude of some 2000 feet, shutting off all view of the interior. From there on to Valparaiso, nearly 700 miles, is a waste of rocky hills partly covered with a hardy brush. In this area rain is occasional, once or twice a year, perhaps, during the so-called winter months, which occur during our summer. Very little difference in temperature is felt, but the days become short and the nights long, as in our winter. After a rain the hills change to a dull green, which lasts a month, perhaps, and then fades again to a dead gray. South of Valparaiso the whole character of the country changes, barren rocks giving way to wooded hills and farm land. The coast is fringed with islands, and possesses a wild, picturesque beauty all its own.

Chile has about the most peculiar shape of any country in the world, stretching north and south something like 2000 miles, yet nowhere possessing a width greater than 90 miles and in most places not over 50 miles. The northern end lies well within the tropics, while the south is bleak and cold. As might be expected in such a mountainous country, the Chilenos constitute a hardy race. The laboring class is practically all Indian—the only tribe that has never been conquered by the white man. Foodstuffs are largely imported and consequently high, yet the rate of wages is low, four pesos a day—about sixty cents. They live principally on bread and



THE 1909 PICNIC



THE TECH CLUB OF PHILADELPHIA HOLDS A CIRCUS DAY

The All-Corners

Tillie Trask, '99

Natalie White, '06

The Suffragettes

beans with almost no meat. This is one country where the Malthusian theory does not seem to hold. If a man is raised to eight pesos he will work only every other day.

The two northern provinces with their valuable nitrate deposits, taken from Peru as indemnity at the close of the recent war, have been the object of her jealous regard ever since. To safeguard their hold the Chilenos have maintained a respectable army and navy. Principally for strategic purposes the state has constructed the Longitudinal Railway, which, starting at Puerta Montt in the south, skirts the foothills of the mountains and extends, with many spurs, westward to seaports, as far north as Arica. The gauges employed are many, ranging from two foot six to five feet. A train is operated north and south once a week, running in daylight only, stops for the night being made at special roadhouses.

The Transcontinental Railway from Valparaiso to Buenos Ayres is a noteworthy one. The trip is made in two days on a line characterized by heavy grades and many switchbacks. The boundary between Chile and Argentina is crossed at an elevation of 14,000 feet in a tunnel two miles long. Traffic is stopped for three months in winter by heavy snows.

At Antofagasta starts the most important railway of Chile, the Ferrocarril Antofagasta á Bolivia, which runs northeast across the Atacama Desert, through the nitrate district into the lofty plateau of Bolivia, and has connections as far as La Paz. About 150 miles from the starting point, reached by a short branch line from Calama, is the gigantic copper mine at Chuquicamata, exploited and operated by the Chile Exploration Company, controlled by the Guggenheim interests. Inside of a couple of years this will be the largest copper producer in the world, smelting something like 400 tons of refined metal per day. At present they are shipping an average of eighty tons a day. Then at Rancagua, southeast of Valparaiso, is the famous Braden Mine, controlled as well by the Guggenheims. William Braden, who exploited this property, is a Technology man, class of 1892, III. He is engaged at present in developing another holding near Chañaral, a small harbor about 175 miles south of Antofagasta. A short railway now in process of construction will connect the port with the mine. The company is known as the Andes Exploration Company, also an American corporation, controlled by the Anaconda. This property will in time rival Chuquicamata as a copper producer.

The principal other American development on the coast is that of the Bethlehem Steel Corporation at Cruz Grande, one of the richest iron mines in the world. Hubert Merryweather, 1904, III, is vice-president and general manager of the operating company, the Bethlehem Chile Iron Mines Company. As at Chuquicamata, the ore body is in the shape of a small mountain of ore, which has merely to be blasted and loaded on cars with steam shovels. At present it is transferred to the coast, a distance of five miles, by an aerial tramway. The Chilean coal mined to the southward is not suitable for smelting, so the crushed ore is shipped direct to Pennsylvania on chartered steamers. I am working on the ship basin which is being constructed for the owners by the Snare & Triest Company of New York. When it is completed, ore will be brought down over a standard gauge railroad by electrically operated trains, and shipped home in the company's own fleet of 17,000-ton vessels.

For the sake of mere completeness, we might add the following postscript:

Well, four years of that life is plenty. The Chuquicamata and Braden boys very seldom renew their three-year contracts, which about half of them I should say fail to complete at all. Recreation is, in general, conspicuously absent. This idea of indolent South American life—siestas under the waving palms, and all that stuff, is bunk, at least on the West Coast, outside of O. Henry. Ten hours a day for seven days is the United States standard week for Chile. You see that doesn't leave any *mañana*. So outside of an occasional horseback ride and a swim in the icy Pacific (limpid waters in fiction only—see South Sea) we tried to labor six days and do the rest on the seventh.

On a very short stay in Chuquicamata I inquired for our Tech crowd but was unable to see any of them. My little girl was born in the hospital there—an insti-

tution, by the way, which reflects great credit on the foreign policy of our best American corporations—so is a full-fledged Chilean. We saw "Fat" Brown again, though, last August in Valparaíso, and learned that Schmucker had imported a Wellesley bride from the states, and was settling down to stay for years.

The return trip was made in many stages: four-horse team to the mine, Tofo; automobile to Punta Teatinos, where the sand renders the road impassable for a car; coach to La Serena, which we hear has since been visited by a severe earthquake; another coach to Coquimbo; then south to Valparaíso by steamer, and after a week's stay in Santiago, home to New York by water, changing boats at Colon.

Needless to say, it's good to be back—we hope to stay for more than a short visit.

1913

F. W. MURDOCK, *Secretary*, 483 Cresent Avenue, Buffalo, N. Y.

A. W. KENNEY, *Assistant Secretary*,
3511 Lowell Avenue, Washington, D. C.

The impression one gets in reading over the replies to our annual letter is that every one is working under great pressure. As it might be expected, the draft has imposed restriction on marriage, and we have very few to report.

H. J. Welsh, VI, was married on June 8 to Corinne Thayer Ratcliffe.—Charles Edison, IX, was married on March 27 to Carolyn Hawkins of Cambridge.—J. F. Hendricks, VI, was married to Ila Baxter on May 15.—Henry Burr, I, is the proud father of a seven-and-one-half-pound future Tech man, born on April 1.—A. M. Loeb, II, finds life pretty exciting between business and a three-weeks-old son.

The war has brought about some curious readjustments. R. H. North, IV, is ordinarily occupied with the manufacture of Ford auto tops, but is now experimenting along several lines with government contracts in view where rubber-coated goods are used. It is not architecture, but he thinks the field is fertile for an architectural imagination.

Kenneth A. Scott, I, is in Cleveland in the important position of operating manager for the fleet of vessels known as Tomlinson Fleet. Ken is also running the vessel brokerage office and would seem to be bristling with business.

Fred W. Lane, X, is still teaching and finds that the war has raised havoc with possibilities for research.

The ten-million-gallons-a-day filtration plant at the city of Akron is being built by Alger & Kraus Co., of which Ralph Alger, I, is vice-president and treasurer.

Prescott Kelly, XI, is an assistant engineer with Morris Knowles of Pittsburg, working day, night and Sundays. From the spectacular accomplishments of the concern which are reported in the papers, we can understand that somebody works hard.

Malcolm Lewis, VII, occupies the imposing position of Assist-

ant Epidemiologist for the Bureau of Local Health Administration, for the State of New Jersey. He writes:

Existence is exuberantly dull. I'm a regular "slothound" on typhoid outbreaks, etc., have also been mosquito fishing and hunting. Fishing is best done for pupae and larvæ in bogholes made by cows' hoofs and filled with rain-water, using a hook and line. A micrometer indicator to register bites is necessary. When hunting cyanide gas is most efficacious. Being opposed to this method as unsportsmanlike, I am working on a gun to shoot the finest calibre needles. This will kill two birds with one shot, for the specimens will then be impaled ready to mount. It looks like a dandy scheme, what? Have also been doing sanitary work in the zones surrounding Camp Dix and Raritan. Ran into Ed. Corbett recently. He's discovering how to make dyes heretofore unknown in this country, and being, a Tech man, has naturally put one over on the Kaiser's dummerkopf chemists by making a much better dye. My wife (Janet B. Higby, 'ex 13) has been a chemist at Colgate's since February, and now it doesn't cost me anything to bathe, shave, or brush my tootsies.

After having been rejected a day after his enlistment as a seaman in the navy, David Nason has resumed making jerkin leather for the government.

Stuart J. Eynon, VI, is designing transformers for the General Electric Co. He notes, briefly:

Trying to maintain balance of population: ten pounds of girls in two bundles arrived in March.

Edgar Menderson, II, is sales manager for the Mason Towle Co. of Cincinnati. He notes:

Trying to keep busy selling Dodge Bros. cars. Having a whole lot harder time to get them than to sell them. Don't know how much longer we shall be able to get them with the government taking all the steel and coal.

Peter C. Lieber, I, is eastern representative of the Indianapolis Brewery Co. In spite of his serious handicap, he is driving ahead. He notes:

Seriously troubled and hampered with a bad heart, which I had when at school. Am head inventor of Progress Machine Works, N. Y., L. & G. Mfg. Co., and above-named corporation, but must go west for indefinite time on account of health and give up present strenuous successful business I have founded here in New York.

Stanley Davis, VI, with the Toledo R.R. and Light Co, writes:

In these trying times it is difficult to find a subject to write about other than that pertaining to the war, and the latter is minutely discussed in the daily papers. Locally we are doing our bit in Toledo to help win the war. Toledo is making a record in putting aeros "over the top" and in every undertaking that helps win the war. Toledo factories are working day and night, turning out twenty-seven different articles in large quantities for the Ordnance Department. There are 56,000 subscribers to the last Liberty Bond issue and Toledo's quota was oversubscribed in each of the three issues. Toledo is now to get the long-contemplated nitrate plant, and in connection with this I might say that the Toledo Railway & Light Company were instrumental in bringing this plant to Toledo.

G. H. Buchanan, V, is gathering the recalcitrant nitrogen from the atmosphere and "canning" it as aqua ammonia and nitric acid keeps him very busy. He is assistant superintendent of the American Cyanande Co., Elizabeth, N. J.

On the letterhead of the American Red Cross Guatemala Relief, Malo Tolman writes in his usual interesting style, from Guatemala:

Just the briefest sort of a note to let you know that I am still alive. Just at the present time I am on a leave of absence of four months from the state of West Virginia and am here in Guatemala, Central America, trying to prove of some service to the American Red Cross in the splendid relief work they started after the terrible earthquakes that devastated the city last December and January. Guatemala was the largest city in Central America, having a population of 125,000, and I can well gather from the ruins, one of the most beautiful. On Christmas night in 1917, again on January 3 and January 24, earthquakes were experienced, and I judge that 90 to 95 per cent of all dwellings were destroyed. Of course, food-stuffs went too, with the result that the people were without shelter or provisions. The president, who is a truly remarkable man, instituted instant relief, but it wasn't sufficient, and when the Red Cross got the tents and supplies, many a small child had been reduced to licking old pans for the grease. A camp of some thirteen hundred tents was erected on the outskirts of the city, and it is here that I am located. I have been here for two months and more and am beginning to like the country more every day. Edward Stuart of the class of 1910 is here also, and we have had some great trips together. He is in charge of the engineering work. Easter Sunday we climbed Agua, a volcano near here that is about 14,000 feet high. Then we have taken trips into the interior where there are only Indians, and incidentally picked up many interesting curios. I hope to be back at my desk in Charlottesville, W. Va., by July 1 and wish that you could find the time to pay me a visit. There is much near by that will interest you.

Through the mother of George Bakeman, XI, we learn that he has been in Russia and Roumania for the last two years. He left Moscow where he was special attaché to the American Ambassador to take up the work as a captain in Roumanian Sanitary Commission.

Alfred Katz, XI, who is employment manager for the Ludlow Manufacturing Associates, finds life just one long streak of work.

Harold S. Crocker, X, as city engineer for Brockton, is designing an activated sludge plant for sewage disposal.

Bill Flanders, I, with the Hooker Electro Chemical Co., Niagara Falls, makes this cheerful comment:

In a city where we are developing and intend to use 150,000 more electrical horse power, existence will be anything but dull for the next five years. Nearly every plant in this entire mecca of the chemical industry of the world is working under extra stress to send its nearly total output directly into the war. There are a lot of poison gases, incendiary bomb fluids, high explosive materials which owe their existence directly to the water power of Niagara Falls. My young daughter of two years and my young son of one year are healthy specimens of scientific development, and reign over our domestic life with keen delight, but great precision.

In the construction of the huge Dupont Dye Plant, Donald Downs, II, is assistant engineer.

John Blatchford, III, is sitting tight on his profession of chemist and engineer and notes:

I am afraid I can't give you any gossip for the boys. I am busy on this job. It doesn't seem very glorious as things go now, but it is my "bit" just the same.

C. P. Wetherbee, II, contributes this bit of comment:

Just a few lines to let you know that I am still on the map. I have been down here in Phillie with the Bell Telephone Company since graduation and just now we are

having about all we can do to provide telephone facilities for the numerous plants which are engaged in war work around these parts. In fact, we have had so much work relating directly to the war that a separate organization has been set aside just to handle the engineering of war jobs. As I am supervising one branch of that organization, I am hoping that I am doing my share to win the war, despite the fact that I'm not in khaki. Anyway, we're going to win the war because we've got to win.

In a very substantial way, if not spectacular, Allison P. Smith, VI, is

Farming to beat the Huns. Accepted the position of President of the Ayer Junction National Farm Loan Association this year, thereby dispensing funds from the government bank to the farmers.

Of our numerous warriors most of our information is second hand, but none the less welcome.

The mother of F. H. Achard, VI, writes that as first lieutenant with the 24th Engineers in France, he has the finest regiment, finest officers, good food, lots of work and a little dog to play with.

Donald J. Neumuller enlisted in 1916 as an electrician. He installed wireless plants with Pershing in Mexico. On his return he took a course in the Officers' Training School in Fort Leavenworth and was commissioned as a captain in October, 1917, in the regular army. He has been in France since December, 1917.

Norman Lynch is with the Engineers in France.

M. P. Quinn is an ensign in the navy on the destroyer U. S. S. *Conner*, now operating in foreign waters. He has three brothers in the service.

Raymond White's father writes that his son says nothing, except

Weather fine, trees in bloom, country 100 years behind U. S. French girls homely.

A. C. Goodnow, X, is chief machinist's mate, U. S. N. R. F., stationed at Great Lakes Training Station, engaged in the construction department building new camps. So far, they have built quarters for 30,000 men and are still building. His work is the installation of water mains for these quarters.

Paul Warner, IV, is an ensign, U. S. N. R. F. He entered the Officers' Ground School of Naval Flying Corps at M. I. T. last December and after finishing the course was retained as an instructor in ordnance.

Lee Walters is a first lieutenant, Co. E, 24th U. S. Engineers, A. E. F., France.

Bradley Ross, X, Capt., 330th F. A. N. A., notes:

Dull? Life becomes more complex every day. True, the chapel is far, far away and I hardly ever see a Tech man, but the time does slip by and I'm figuring that the alleged Beast of Berlin hasn't found the number for the shell that will keep me from dropping in for the jubilation at the next '13th tin wedding anniversary. Am stationed at Camp Custer, Mich., until the division leaves, which I hope and expect will be soon.

Carl Briel, I, is in France with Batt. F, 306th Field Artillery.

Albert W. Buck is a sanitary engineer with the American Red Cross at Salonique, Greece.

Harold Green, II, is a second lieutenant, S. R. C., at Mineola, L. I., N. Y. He notes:

Was fortunate in having my ground school training at M. I. T., where I was very much at home. Have been fighting the battle of Mineola since April 5 as fire marshal of the post. Expect to take up flying as soon as I pass the examinations. Then I hope to get over there where there is more excitement.

Fay Williams, II, is a first lieutenant, stationed at Watertown Arsenal. Read how a real busy man is on the job:

Rise at 5 A.M.; on duty from 7 A.M. to 6 P.M.; turn in at 9 P.M. Have had one day's leave in six months—was sick that day! Hope to be "over there" soon with the big guns we are making.

Dana Gillingham, V, is an ensign on the U. S. S. C. 240, whatever that might describe.

A. W. Vose, I, is with Co. M, 23d Engineers, in France.

J. F. Hendricks, VI, now a lieutenant of ordnance, writes:

Left the Texas Power and Light Company in September, 1917, and entered Camp Travis, Tex., as private. Appointed second lieutenant in Ordnance Department November 8, 1917. Have been employed as an assistant to the inspector of construction, Nitrate Plant No. 1, Sheffield, Ariz.

That old, hardened soldier, "Bull" Gere, I, finds it hard to have to stay in this country. He notes:

Existence dull? Well, yes, just now, as all I am doing is guard duty, but hope for a change by fall. Being supply officer for the squadron stationed here, I have a little work now and then, but it sure is hard to see every one going over, while I stay behind. I see several Tech men at times passing through and some stationed at school, at Fort Monroe. The camp commander is a man that spent three years at Tech some time back, now Lieut.-Col. Colling H. Ball.

Caleb C. Pierce, IV, is second lieutenant with the Adjutant-General's Department, stationed at Washington. He, too, is chafing about the small prospect of his getting across.

Here is Roger Freeman, VI, back on the job with another of his interesting letters. Somehow Roger has the faculty of associating with the biggest kind of jobs. He says:

At the time of my last letter to you I was serving as construction engineer for the Chase Companies, Incorporated, at Waterbury, Conn. I built up a construction organization there consisting of a dozen or more assistant engineers and about four hundred men. This organization included the following Tech men: Irving Young, '11; Tom Callahan, '14; Fritz Blomquist, '14; Ned Goodell, '14; Hovey Freeman, '15; Jack Hepinstall, '16. We also had representatives from Dartmouth, Rensselaer and Yale.

In somewhat less than two years we designed and built approximately a million dollars' worth of reinforced concrete and structural steel factory buildings for the Chase Companies, which include the Chase Rolling Mills, the Chase Metal Works and the Waterbury Manufacturing Company. On the last concrete building which we put up, a six-story flat slab building, 200 feet by 60 feet, we maintained a schedule of six days per floor.

About the middle of last November I felt the call and entered the Navy Department as supervising engineer, Bureau of Yards and Docks, and was subsequently designated by Secretary Roosevelt as the representative of the Navy Department in full charge of the extensions and improvements at the plant of the Erie Forge & Steel Co., Erie, Pa.

The extensions involved building an entirely new steel plant, consisting of an open hearth, forge shop, machine shop and heat treating building at a cost of approximately six and a half million dollars, for the manufacture of shafting and gun forging for the navy destroyer program. The plant is owned by the navy.

Since November 11, when the work was started by cutting down an apple orchard which covered the site, it has been a question of working day and night without regard to weather conditions or anything else, in a tremendous effort to start operation as early as possible. Our construction organization was over two thousand men. Among other things, we erected six thousand tons of steel in sixty days and poured over fifteen thousand yards of concrete at an average temperature of 10 degrees. I brought some of the gang from Waterbury out here with me, including Tom Callahan and Jack Hepinstall.

We took out our first heat from one of the open hearths on May 17 and made our first forgings May 30 and we are now operating at a full capacity, or rather more than full capacity as in the first week of operation we turned out practically twice as many forgings as called for by the schedule.

In addition to this work in February, the Navy Department wished on me the construction of a smaller forge plant for destroyer shafting for the Pollak Steel Company at Cincinnati, Ohio, and later a heat treating building at Allis Chalmers Company, Milwaukee, Wis. Another interesting job was the design and construction of half a dozen dormitories and a recreation hall for the Navy Department, for employees of the General Electric Company at Erie. At Milwaukee the heat treating plant consisted of building a skyscraper with the Crane rails 135 feet above the ground to permit vertical treatment of 60-foot shafting.

Needless to remark, it has been a reasonably busy winter.

I took a day off on March 2 and became a benedict, the one who took the chance being Miss Mary Elizabeth Bradstreet of Thomaston, Conn., where I went four years ago on construction work for the Turner Construction Company. We are now living at 608 Chestnut Street.

My next job is the new armor plate plant for the Navy Department at Charleston, W. Va. I expect to get away from here within a week, first to Washington for a few weeks to whip the plans into shape, and thence to Charleston.

I have run into quite a few of the class on various trips to Washington, among others, Lieuts. Bill Katzenberger and Dick Catton, who expects to go "over there" this week. I hope if any of the boys get to Washington during June or July or anywhere near Charleston later on, they will look me up. I have got to build up a much larger personnel for this work and if any of the gang want to get aboard I would like to hear from them.

H. P. Fessenden, I, is the first one to say that things are pretty quiet in business. However, his six-months-old daughter Eleanor does her share to make up the deficiency.

William S. Black, III, is with the U. S. A. Signal Corps, Photographic Detachment.

H. J. Von Rosenberg, IV, is a first lieutenant, Sig. R. C. A. S. He notes:

The day is full and eventful in this arm of the service. The Kewees are to receive flying instruction in addition to their other duties which has improved the moval materially.

In his unobtrusive way, H. S. McLellan, I, has the right idea. He writes:

During the last two years have been employed as assistant with the New Eng-

land Telephone and Telegraph Company, Engineering Department, and life was rather interesting until the war came to us, and since then; and it is more and more noticeable, all work not directly connected with the war seems dull and valueless. I have only been accepted in "limited service" in the draft, on account of a defect in my right forearm, but I expect before long that they will find work for us to do.

Have read the class notes as they appear in the *REVIEW*, and have some idea of how many of the class are in service and at the front. Certainly our class has done its "bit" all right.

I've said a little too much about an existence which isn't at all exciting, haven't I? But at least this will tell you that I am still on earth.

Office Assistant to Chief Engineer, Engineer Corps, P. O. 706, A. E. F., is the position which Paul J. Franklin, IV, holds.

Johnny Welch, X, is head of the laboratories of the Winchester Repeating Arms Co., making rifles, machine guns, Colt 45 pistols and also cartridges.

R. J. Tullar, II, is chief draftsman at the Naval Aircraft Factory in Philadelphia. Listen to his cry:

I yearn to hear from Don Van Deusen and Hap Peck, and please, where is A²B and A. H. McGilfrey? Good-bye and good luck.

Edward N. Taylor, XIV, is process engineer with the Winchester Company. He says:

Just working like the devil to increase production and improve quality of small arms and ammunition for the fight. Too busy to do anything else.

Phil. Barnes, X, is now chemical engineer for the Pfandler Company of New York. He has enlisted in the Naval Reserve, but has not been called.

In the sleepy old town of Portsmouth, N. H., First Lieut. Dick Cross, VI, is trying to curb his anxiety for action. He notes:

I guess, Fred, that the only excitement there is these days is concentrated right in France — at least there isn't much in the army at home. Perhaps next year there will be enough of us in France to have a reunion right there.

I have been living on the government for six months, but suppose my turn will come some time.

First Lieut. Arthur W. Carpenter, X, is with the Sanitary Corps of the National Army now in France.

The announcement is made of the marriage of Lieut. Norman Holmes, X, to Mabel K. Stanton of Philadelphia.

J. M. Hastings, X, is in civilian service in the Ordnance Department.

All Course I men will appreciate this little bit of humor from Harry Norman, who is a surveyor for the Bureau of Yards and Docks, Navy Yard, Norfolk, Va. Harry writes:

I agree with that Long-fellow, life is but an empty dream, unless you have a big government contract.

Isn't that just like Harry, always crabbing?

Allen G. Waite, III, who was married on December 12, 1917, to Julia Rockfellow, is a first lieutenant, Sig. R. C. A. S., stationed at Kelly Field, San Antonio, Tex.

Charles E. Trull, VI, after many failures, has finally convinced Uncle Sam that he needs him. Charles is now a second lieutenant in the Aviation Section, Sig. R. C., enjoying the excitement of tail spinning and looping at Selfridge Field, Mt. Clemens, Mich. He expects to leave soon for "over there." Charlie had the unusual experience of passing through a thunder storm in an aeroplane. He writes:

On a trip to a near-by city we passed through a thunder storm and it certainly was an experience to remember. The rain felt like a thousand needles as we climbed through it to get above the storm. At last we rose above it and when I looked down I saw what seemed a vast ocean of gray with mountainous waves, and then for the first time in my life I saw a rainbow from above; one end started from the lake and the other ended in a small village. We were flying in a Curtiss machine. I have seen the Liberties and they are certainly wonders for speed and climb, considering they are essentially a heavy plane motor.

Carl Stucklen, IV, is a second lieutenant, A. S. Sig. R. C., in the Department of Military Aeronautics. During the last year he has had some speed work in the construction of flying fields, warehouses and general construction of aviation work.

Warren Glancy, X, is with the Ordnance Department, stationed at the Edgewood Arsenal, Edgewood, Md.

Alfred Higgins, VI, is in charge of the making-room office of the Hood Rubber Company. He has a son, born May 13, 1918.

Besides being the father of three beautiful children, Samuel S. Crocker, Jr., XIII, is a first-class ship carpenter for George Lawley & Son Corporation. He notes:

One year ago I was designing and building boats and yachts for myself in Marion. Then I came to Lawley's and during last summer I had charge of planking and deck framing eight of the 110-foot chasers. Am now doing repair work.

Joseph C. MacKinnon, VI, is the assistant to the president of the Academic Board of School of Military Aeronautics at M. I. T. He says:

There is always something doing on the "Charles Front." We are training aviators here at M. I. T. and most of the fellows are chuck full of "pep" and enthusiasm and eager for knowledge.

George Richter, X, is Chief of Pyrotechnic Division of the War Investigations Bureau of Mines. He expects to go across in chemical capacity soon.

Levitt Custer, II, is engaged in the manufacture of Custer Statoscopes, an instrument of his own invention.

We are pleased to insert a small marriage column here of two names: S. R. Ramsdell, V, was married February 21 to Margaret L. Bateman, and Henry E. Randall, VI, was married to Eleanor H. Moore, Dayton, Ohio, October 10, 1917.

Three of the plants of the Bethlehem Shipbuilding Corporation are under the general managership of E. B. Germain, II. They produce torpedo boat destroyers. The turbines are made at Buffalo, boilers at Providence, and the hulls at Elizabeth.

President Wilson has bestowed upon Arthur Kenney, X, the designation, 1st Lieutenant, U. S. N. A., Chemical Service Section. He is working in Washington on the chemical research end of the defense side of gas warfare.

D. Lewis, X, is too modest to write the secretary, but we take the liberty to quote from his letter to one of our classmates:

Well, I am leading a slacker life, although working on nitro cellulose. I certainly wish I were actively engaged in the game, but family circumstances keep me from serving as anything but an officer, as I need the money to buy shoes for the baby. She certainly is a fine one. Arrived December 24, 1917, and named Mary Jane Lewis. Smart, handsome, like her father. There is nothing like them.

Hutch and his fiancée were out to see me last Saturday. He is to be married in a few weeks. It was the first time I have seen him in two years and he certainly has changed in appearance. He is studying patent law at night. He is still sadly addicted to punning, and perpetrated a few atrocious ones the first few minutes he was with me. To make matters worse, his fiancée has contracted the same habit. It will be their own fault if their offspring are inclined to be puny.

Gotherman, VI, '13, is a frequent visitor to our place, but I seldom see any of the other fellows.

George Clark, II, is an ensign in the U. S. N. R. F., now occupying the position of superintendent of the L. E. Knott Apparatus Company.

Another embryo bird man is O. C. Walton, VI, who is learning to fly at Hazelhurst Field No. 1, Mineola, L. I.

Bob Leshner has had experience in a rather unique field for one of our class. We are glad to print his letter which bristles with a modest, yet deep patriotism:

In reply to an urgent appeal which you are making at this time and which I am thoroughly in keeping with, due to the uncertainties that are ahead of both the individual and the nation, I am submitting a very cursory statement as to my activities since leaving the Institute.

As you personally know already, I spent three years in graduate work in the departments of economics and politics, Columbia University, and specialized at the same time with consulting engineers in New York in the field of port and terminal development. After serving various secretaryships to agencies in this field, and enjoying a very profitable survey of the Pacific Ports from Santiago to Vancouver, I immediately, upon declaration of war, went to Washington with the Council of National Defense on organization work, and spent a most enlightening ten months in helping to mold the machinery to launch this vast struggle.

When the transportation conditions became acute, I resigned my post there in order to study the congestion of both the water and rail systems, and shortly afterwards was appointed the manager in immediate charge of field and office forces in the appraisal of the Bush Terminal in Brooklyn, which the government commandeered for its overseas needs. I am just completing that task, and July 1 faces me as the date when I shall don the worthy uniform of a private in the service of the United States.

In "the hottest place on earth" 2d Lieut. Frank H. Mahoney, V, says he is learning to drop bombs, etc., at Ellington Field, Tex., with the Aviation Section of the Signal Corps.

Way out in Denver, Roy A. Randall, IV, bobs up. For two and one-half years he has been in the Construction Engineering

Department of the Mountain States Telephone and Telegraph Company. He notes:

Still on earth. Only thing keeping me out of war is that I'm on the mend from an operation. Expect to get in yet. Don't know any Tech boys in Denver, do you? Would like to communicate with any of the boys, E. E. Smith in particular. I am just sort of finding my niche in the technical ranks and am beginning to sense the gratitude I owe to the things I learned at Tech. My thoughts are with the class and the boys who have slipped over to help knock the Boche into the middle of the next century. Will give you more dope at a later time.

Julian E. Adler, X, is a candidate in the Artillery Section, O. T. S., Camp Jackson, S. C.—Elliott Gage, XI, is engaged in the construction and inspection of water supplies in France. He is enjoying it immensely.—In four months H. B. Horner, IV, is trying to cover the Naval Academy Course of four years at Annapolis.

Albion Davis, I, has this to say in regard to himself:

There is so much "big" work going on outside that I have been a bit uneasy at the same old job, however, with the thought that it is necessary work and that some one would have to do it. My work has been as interesting as usual. An article describing the air system which we installed at Keokuk to prevent ice pressure appeared in the March, 1918, Stone & Webster *Journal* and later in the *Engineering News Record* of April 25, 1918. I wouldn't mind some of the coolness described therein, right now. The thermometer stands at 91 degrees in the shade and it is only 11 A.M. at that. War activities are unusually strong here. Keokuk has made an enviable reputation in its Red Cross work, both as to quality and as to quantity. Every one is heart and soul with the work when it is for the war.

John K. Batchelder, XIV, is now superintendent of the Lead and Copper Electrolytic Refineries, engaged in producing lead and copper for Imperial Munitions Board in Canada. He notes:

Am having lots of work to do, but am also having a comparatively enjoyable life. Motorboating on the Columbia proved to be too slow a mode of travel and so, since a man must have some recreation, I invested in a buzz-wagon this spring and am having lots of fun and hair-raising experiences motoring by night in the mountains.

L. E. Richardson, II, is with H. P. Converse & Co. at the Naval Operating Base, Hampton Roads, Norfolk, Va.

W. S. Hughes, V, is working for the Bureau of Mines, American Universal Experimental Station.

William deY. Kay, VI, is head of the Contract Department of the Gas Defense Service. He writes:

The Gas Defense Service is a growing organization, due to such bright lights as Ken Blake and Birdie Duff; Col. Bradley Dewey is at its head. We may all get to France and we may not. The work is interesting, the weather hot, and there you are. Outside of best regards to the fellows, there is nothing more to say.

The up-to-date title of aeronautical engineer appears on W. W. Alley's letterhead. He writes the following interesting letter on a subject which has been much discussed in the papers. Here is some straight dope:

Even out here on the coast [Pasadena] life is exciting these days, for we are trying to help, as best we can, to win the war. We, of course, have our ups and downs

but when all has been said and done, we think California will have done her share towards the realization of the ideal of a universal brotherhood of humanity. For that, to my mind, is the meaning of the war: one section of the human race taking up arms against the rest, determined by hook or crook (mostly crook) to force its Kultur upon the other brothers thereby trying to make a part greater than the whole.

Now for more concrete matters. For the past four years I have been "in the know" on the aircraft situation, I having been draftsman, chief draftsman, assistant engineer and chief engineer of one of the oldest and largest of the aircraft factories in the United States, the old Glenn L. Martin and later the Wright-Martin factory in Los Angeles. The factory was closed April first, a kind of April fool's joke on Uncle Sam, after being in continuous operation since 1912. So perhaps you and others of the class would be interested in a view of the aircraft situation, from the inside looking out.

First of all, I believe and the general consensus of opinion seems to be the same, there has been little if any graft and deliberate mismanagement. The grave error was a lack of appreciation of the magnitude of the task undertaken. And this initial mistake taken in connection with the fact that during the two and a half years of war preceding April, 1917, there was no preparation made for emergencies, is the real cause for all the delays and disappointments.

Second, after having made a decision as to what was to be done, those outside of the ones having production in charge were permitted to alter the product during manufacture; in other words, experimentation and production went hand in hand, with results extremely disastrous to production. As an example: While we were building fifty training planes, the complete gasoline system (tanks, piping, shut-offs, etc.), was changed twice, entailing a loss of approximately fifty thousand dollars in time, materials and parts. Had all these changes been additions to the program already settled on, much better progress would have been made.

Third, a continuing program was not arranged for. In some plants by the time quantity production was actually achieved, the order was exhausted and the plant had practically to shut down pending further orders. This has happened repeatedly; in fact, I do not believe that there is a single factory in the country which has worked continuously to its capacity for the past three months. Conditions have very greatly improved in the past six weeks, however, and from now on we will hear a different report.

Fourth, the possible uses of aircraft in war are in no sense fully realized, even at this date. As a result, new developments are consequently requiring modifications in existing types and introduction of new types. This makes it certain that any program putting a definite limit on the number of planes to be constructed will fall far short of the number actually required.

Fifth, the estimate given by the National Advisory Committee as eleven thousand planes, and embodied in the program of the Aircraft Production Board, was based upon an army of one million by the spring of 1919; now it is plain that by this time the army will be nearer three million strong and consequently the original program, which is now much delayed, should itself be increased three times its original total.

The above gives a general idea of the conditions under which the aircraft industry is working. During this period of confusion our factory closed down, for reasons never publicly given, and the employees were scattered all over the country. Pending the opening of a new plant in Los Angeles or vicinity, I took this small office where I could do some work for myself and have a headquarters to work from. By the end of this month I expect to be with a new company forming in Los Angeles as chief engineer and engaged on government contracts. So sooner or later I will be needing help. If any classmates are interested along this line, or know some one who is, have them let me know.

I will gladly send any news I can to any of the boys "over there" and would like to hear from them in return. How are the Course IV's and how many of them are in the air service? If I am unable to make the proper connections before long, I will try for the service myself. I came out 4 A in the draft.

The Bray family are what one would call real patriots. Read what E. L. Bray, VI, has to say:

Hope to see some of the fellows in France before long. Was put in Class 4 A in the draft on account of wife and baby daughter, but am going to enlist anyway. My wife has registered to take a man's place and make munitions, by heck! She has the particular slacker hiding in ordinary munition work picked out and will apply for his job.

L. E. Wright, XIV, is chemical engineer, Bureau of Mines. He notes:

Meet another Tech man every day. A year ago I thought they were all in Washington. M. W. Merrill, fresh from South America, came here last month. Hope to have a gathering of all 13's in Washington for lunch or dinner soon. Hugo Hanson, captain in chemical service, returned last month from France. Would like to hear from John Gann, graduate student in Chemical Engineering, '13. At least, furnish his last address. Nothing exciting at American University, just research on anything. The subject may be gas mask or drop bombs.

School teaching is a little prosaic in these times for men of our age and training, so we find B. L. Cushing, II, with the United States government, Assistant Physicist, Bureau of Standards.

E. B. Long, Jr., is in France. His mother writes:

After obtaining a lieutenant's commission in Field Artillery at Plattsburg in August, 1917, Mr. Long was sent directly to a school of fire somewhere in France. About January 1, 1918, he was sent to the front. June 1 word was received that he had been wounded and was in a hospital where he remained three weeks, after which he returned to the front.

J. W. Lovell, VI, is an electrical engineer for the Collyer Insulated Wire Company. He notes:

Have lots of government orders here and am consequently very busy. At present I have deferred classification III-K, but am liable to be transferred to other work.

C. K. Hillman, VI, is manager of the C. K. Hillman Company, doing electrical work in the equipment of shipyards. He remarks:

Business very brisk. Seattle having wonderful growth and prosperity. Future assured.

A. H. Clark, V, is assistant superintendent of the Goodyear's Metallic Rubber Shoe Company.

C. H. Hopkins, IV, is doing rather unusual government work. He is manager in charge of all operations of the Conaway Ranch under contract with the government to grow castor beans. He notes:

Twenty thousand acres in ranch—ranch being developed by irrigation and drainage works—raising barley, wheat, rice, hay, beans, corn—well, lots of little things on this little ranch to help feed a hungry world, such as sheep and cattle.

Leroy Block is lieutenant in the navy. He was married on June 26 to Mildred Nash.—F. H. Kennedy, IV, is in the Meteorology Section, Signal Corps. He writes:

We are at a college in Texas studying in the good old college way, living in houses and eating from china dishes, not in the least like "army" life. There are three hundred of us in this section, all college men, mostly engineers.

S. E. Ganser, IV, has been connected with some pretty big work. Read what he has to say:

If it is worth a dollar to friend Murdock to hear a word from each one, I'll do my bit. Perhaps it may be interesting to know that during the five years gone, I have been busy, but didn't realize over how much work I have actually traveled. IV's men usually get mixed with contractors and railroads and I am well tied up to the latter. Here are some items I have been on as designer: Ore dock, terminals and shops for Duluth and Iron Range Railway, \$1,000,000; \$3,000,000 office building for N. P. Railway; \$1,000,000 ore dock, six new piers, at Seattle; \$2,000,000 one-fifty-ton crane for Panama Canal for United States; 1,300,000-bushel elevator for Western Maryland Railway; 2,000,000-bushel elevator for North Western Railway; one seven-story, flat-slab office building, Western Electric Company; mechanical and electrical equipment for ore docks and elevators, etc. Thanks to good old Tech, I haven't had to sit back and take the small stuff while some one else got the big. My sincere best wishes go to all our classmates and hats off to the best school in the country.

Training recruits at Camp Jackson, South Carolina, is the job of 2d Lieut. D. F. Conlon, III.—R. F. Braly, I, is a first lieutenant in the Eng. R. C.

John A. Gann, X, is chemist for the Dow Chemical Company, Midland, Mich. He notes:

I am thankful to say that I have changed jobs, thereby leaving a German firm to get into a real American one. In one sense, life is rather dull here, as Midland is a small one-horse town practically isolated from the rest of the world by its very poor railroad service. From the chemist's viewpoint, however, this is an exceedingly live place. Our chief products, which are expected to help down the "Huns," are carbolic acid and various trench gases. Work is now going on at a tremendous rate to at least triple the present output of carbolic acid. This plant is also destined to become one of the chief, if not the most important, source of trench gas. The government has invested a large sum of money for the enlargement of the output of the plant along this line. At the present time a large force of government men and also soldiers in uniform taken from the draft are at work here. We are also hard at work on "aeroplane dope." Sure, this is the work in which I am now engaged. I feel that I am doing my little bit to help win this war.

J. H. Devine, V, is chemist and paint engineer for the Pennsylvania Lubricating Company and also Pennsylvania Linseed Products Company of Pittsburgh. He writes:

We are very busy manufacturing greases for the rolling mills, etc. The Pennsylvania Linseed Products Company, with whom I am nine-tenths of the time, is doing an enormous business with a new paint oil called "Linotol." This is undoubtedly the best and only oil of its type. Only last week we had representatives from several large concerns to see exposure tests made by myself over three years ago of several different types of paints made with Linotol. The tests were exposed within in a few feet of the salt water and were in a very good condition. Linseed-oil paints were exposed at the same time, but after three years' exposé, the Linotol paints were equally as good as the linseed oil paints. We are now supplying nearly all of the large manufacturers and we think we have a very good product.

M. W. Christie, I, is with Fay, Spofford & Thorndike, Boston, Mass., on the Quartermaster Terminal in South Boston.—C. L. Burdick, III, is a first lieutenant in the Nitrate Division, Ordnance Department. He is concerned with special investigation work on new processes and products from nitrogen fixation.

We have another bully letter from Mayo Tolman, which we are glad to print:

The American Red Cross sent me to Guatemala as one of their engineers to help out in the relief work that they instituted after the terrible earthquakes of December and January. I never saw such a sight in my life as Guatemala City, nor did Stuart of the class of 1910, and yet he has been in the warring countries of Europe for two years. The earthquakes pretty thoroughly leveled the buildings and there was only one in the entire city that was not seriously damaged and that one happened to be of reinforced concrete. When the Red Cross Relief Commission reached Guatemala there were thousands of people without any shelter whatsoever. We immediately erected a camp of some thirteen hundred tents to shelter the most destitute families and, of course, the food supply was at a low ebb, so the Red Cross sent in some \$120,000 worth of food stuffs which we used to feed the people in our camp. It was a very interesting experience though more or less trying, as the state of destitution of some of the people was pathetic. Mr. Stuart and I had some interesting trips out into the country, including the climbing of one of the highest volcanoes in Central America and a five-day trip to some of the interesting Indian villages; trips to banana plantations and to the Maya ruins at Quirigua. These later ruins are reputed to be all of two thousand years old. The Relief Commission completed its work early in June and I have just gotten back to my office desk and I am now at my old job of chief engineer for the State Department of Health. I also have the added duties of superintendent of filtration for the West Virginia Water & Electric Company and bacteriologist on the construction work of the big government powder plant at Nitro, W. Va., so my day is a full one, beginning about 6 A.M. and running continuously, with no lunch, until 6 P.M., and then again from 7 P.M. until 11. It is interesting, but a little tiresome.

You will be interested to learn that there are about twenty Technology men located within a radius of twenty miles of Charleston, and we have formed a Technology Club of West Virginia. Mr. Ross F. Tucker, '92, is president, and the job of secretary and treasurer was wished on me. I am going to give a little smoker at my home next Saturday night and only wish that we weren't so far from Buffalo but what you could come down and join us.

I am sending you, under separate cover, an effusion of mine that may interest you, entitled "A Sanitary Survey of Charleston, West Virginia." It has at least served to stir up a few politicians and get me roasted unmercifully in the newspapers. However, there is every reason to believe that it will do the city some good.

Willard H. Roots, our other clerical member—Brown we know, too—is now nearer home. He is Episcopal minister at Sharon and Mansfield, and is living at 52 Pleasant Street, Mansfield.

F. R. Barker, II, is doing government work, making special machinery and tools for arsenals. He is located in Boston.—Ted Hersom, VI, is now an ensign at the communication office of the First Naval District, located in Boston. For a few months previous to the middle of May he was looking after his late father's business.—Halsey Edwell, II, was drafted last September and is now a 2d lieutenant of Infantry in the National Army.—David Stern, V, as treasurer and general manager of the National Can Company, Boston, is, as he puts it, "trying to can the Kaiser."—H. E. Beckman, VI, is a 1st lieutenant acting as an assistant to the Expeditionary Quartermaster at the Port of Embarkation, Hoboken, N. J.—S. D. Shinkle, V, is assistant chemical engineer with the Bureau of Mines in Washington.

R. K. Wright, VI, is assistant electrical engineer of the Baldwin Locomotive Works. He writes:

Left the N. & W. Ry. electrification job in December, 1916, to accept a position as assistant to the electrical superintendent on the construction of the Eddystone Ammunition Corporation Plant. Was later placed in charge of electrical department of that company, which was a subsidiary of the Baldwin Soco Works. From that position was promoted to be assistant electrical engineer of Baldwin's. A large majority of the output of the plant is government work. The June schedule calls for the completion of more than two hundred locomotives, most of which will be shipped to France.

Third Class Gunner's Mate, that is Al Gibson, III. He notes:

Am in the Officers' Class in the U. S. N. R. F. Training Station at San Pedro. I enlisted last December and was called the first of February and got admitted by examination to the Officers' Training Class in April. We are studying Navigation, Ordnance, Gunnery, Regulations and Seamanship. Go to school all day and are locked up to study at night. It is a stiff course, but very interesting. In the last examination in Navigation I got the highest mark out of ninety men, but the dubs all said: "No wonder you get it easy, you got through 'Boston Tech.'" That old school has *some* reputation. Don't you find it so? Expect to get our finals about July 15 and get commissioned as ensign about August 1 and then go to sea. You would probably laugh if you could see me in my sailor blouse and flop pants. It took me a while and my wife longer to get used to it. I expect to get sent East the last of August and am crazy to see the new buildings.

The Chile Exploration Company has released M. W. Merrill, XIV, for the duration of the war. He writes:

I arrived back in God's country about the middle of March, after having been in South America for three and one-half years. Although I had a wonderful experience in more ways than one, it seemed mighty good to get back to the U. S. A. Ever since my return have been looking around to find where I could get into war work that my training might be of most value to the government. I have found just what I was looking for and now most any day I expect to get an appointment in the O. R. C., to be located with the Ordnance Department at Edgewood Arsenal, Maryland, in connection with the electrolytic chlorine plant.

After the war I shall in all probability return to Chile for a couple of years to complete my present contract with the Chile Express Company.

On New Year's Eve, Mr. L. R. Rourke (formerly city engineer of Boston, but at present acting general manager of the Chile Copper Company's Plant at Chuquicamata, Chile) gave a Technology get-together banquet to the six Tech men at that time stationed at Chuquicamata. A very enjoyable evening was spent talking over old times while at the Institute and in addition each man gave a brief history of his life since graduation, and as most of the men had spent a great deal of time in foreign fields, it was exceedingly interesting. Yours truly was the only 1913 man present. Frank Smith, who was in Chuquicamata, had returned to the U. S. A. to join the army sometime prior to this. Just at the present writing, while waiting for a call from the War Department, I am doing a little war gardening, but even this has its drawbacks when you consider a heavy frost on the 20th of June.

Everett D. Yerby, I, is lieutenant with the 13th Cavalry, doing duty on the Mexican border.

Edward T. Dobbyn, VI, is a ship draftsman at Fall River. He has been working on submarines for the past three years, and has been out on submerged runs and trials.

The stork brought a daughter to D. L. Pierce, X, on October 2, 1917.

Ralph Rankin, VI, is electrical officer on U.S.S. *Seattle*. He notes:

For six months, since leaving the battleship fleet, I have been convoying transports to various ports "over there." Life is not dull—not on this old hooker—not for a minute! Between standing four on and four off, and dodging the subs, and helping keep the ship going, I don't have time to think about my troubles at all. Have seen more Tech men in France since January than I ever saw in Boston. It sure is cold in the North Atlantic. After another winter of it I expect to stay frozen the rest of my life.

Larry Hart, XI, is in Chicago. He writes:

Existence is anything but dull. My work here at the office (H. W. Johnson-Manville Co.) keeps me "on my toes" and "full of pep" all the time. The remainder of the time I spend with my wife and four-year-old son. That "kid" keeps me busy answering his questions and "rough-housing" with him. Just returned from a fishing trip up in the Wisconsin North Woods. Had my family along. Landed about 25 good game fish, including one seven-pound pickerel and a good, game, scrappy black bass (4½ pounds). I am having the bass mounted as proof of this "fish story." Come out to Chicago and I'll be glad to show you the Indian. Best regards to yourself and all the 1913 boys.

H. B. Beebe is a Second Lieutenant with the American Expeditionary Forces.

Read what H. M. Rand, I, has to say:

I had a 5½ pound daughter born this spring, on April 10. She doubled her weight in exactly ten weeks. I am still in the grocery business. Part of my job is to try and pacify the Food Administration by showing them that we are not making any money. I should think that they would want us to make all we could because it goes to the government, nearly every cent in taxes. It is also a tough job to keep the help satisfied now. The big money that the government pays certainly looks good to them. I don't know but what I will have to get a job myself, throwing hot rivets or something like that. I refer to the recent "work or fight" draft ruling. Expect, however, that I will take my chances with the good soldiers in Class II A. It is too bad that we had to miss our five-year reunion, but when the time is right, we ought to have a corker.

On September 11, 1917, a daughter was born to Mr. and Mrs. Wm. H. Torrey.

P. V. Burt, VI, is chief yeoman, U. S. N. R. F., Bureau of Supplies and Accounts, Washington. He writes:

Have been with the Babson Statistical Organization for four years. Occupation putting the 'tics in statistics. My work here in Washington is statistical, likewise; therefore, I am right at home. However, I expect to go to sea within a few months, where there will be a little more excitement.

George R. Bartlett, III, is boasting of a son born June 21.

"Rusty" Sage I, is a busy man, engaged on hull construction on the new destroyers at the Bethlehem Ship Building Corporation at Squantum. Mr. and Mrs. Sage had a son born February 4.

Few would suspect that Allan S. Beale, I, would take up such an exciting sport as flying. He is training for a commission and writes, "Left civil life January, 1918. Enlisted in Aviation Section (Flying) December 12, 1917. Was graduated 'With Honor' from Ground School, Austin, Texas, March, 1918. Elected to associate membership American Society of Civil Engineers, April, 1918. At present undergoing training for sky pilot in Uncle Sam's Air Service at San Antonio, Texas. Writing this on the flying field between flights. Flying is all it is advertised to be, fine game and

full of thrills and unquestionably a most efficient branch of our fighting forces. Expect and hope to get across this fall. In meantime am enjoying my training immensely. Fly half a day, keep up academic and practical subjects, the other half, all very interesting to an engineer. My present life is quite a vacation from my previous arduous duties, building elevators, railroads and bridges. Left a very fine position, engineer of construction on a million-dollar contract in New York City, paying me over \$3000 a year. Satisfied with the change, however, and expect to put in a couple of useful years in France, and plan to tour Berlin before returning. Good luck to the boys here and across."

Lee Bowman, IV, has made a record in the National Army. He notes, "Drafted September 23, '17. Sent to Camp Devens with Boston's Own 301st Infantry. Transferred to 301st Engineers in which organization I was private, corporal, line sergeant, supply sergeant, and master engineer senior grade. Commissioned June 17th. Am at present attending the United States Army Gas School at Camp A. A., Humphreys, Virginia."

Few men have had as good preparation to help the government at the present time as J. B. Woodman, Jr., 11. He writes, "I have been engaged in building ships for the Navy and Shipping Board with the Newport News Shipbuilding and Dry Dock Company, with whom I have been for the past four years. I am now at the head of the Estimating Division of the Engineering Department with the title of Engineer."

"Heinie" Glidden, IV, has deserted architecture for the present. Read his newsy letter. "When architecture took a big slump out in Michigan, last fall, I decided to leave the profession, at least temporarily, and get into some sort of war work. The position which they gave me here at the Carr Fastener Company has developed into a very interesting one and is almost entirely concerned with government contracts. We are furnishing all the 'Lift the Dot' and 'Durable' fasteners to the government. The numbers which are used are perfectly enormous, as they go on a great many pieces of equipment, the cartridge belt, medical belt, magazine pocket, canteen pocket, breach-lock cover, etc. The factory is one of those in the back yard of the new Tech Buildings, and one of many in the immediate vicinity that are on war contracts. Fred Kennedy, known as 'Peruzzi' to the course IV crowd, is now with the 'Science and Research Department' of the Aviation Section. The last time I heard from him he was at Waco, Texas, but expected to go across soon. 'Sharerib' Barrows is a draftsman with the J. G. White Engineering Corporation working on a large aviation cantonment at Hampton, Virginia. He writes that he is living in the barracks in a room with another Boston chap. He said the furniture in the room consists of a bed, two windows and a door—very luxurious."

Read what Marion Rice, X, has to say, "I have had the dollar

for some time, I was just waiting till I got the job. That came yesterday and I am sending this while I still have it. I'll be working this summer for the University of the State of New York, mapping the geology of the West Point Quadrangle. Of course, it is only temporary, but it is the most permanent job for me in nearly two years."

B. F. Thomas, VI, is a mechanical engineer for the United Railways Company of St. Louis. He asks, "Where in the world is Bob Weeks? Have not heard of him since he passed through St. Louis on his way to Mexican border in 1916. Also saw in A. I. E. E. Proceedings that his address was wanted. Bob never kept under cover while at the Institute, so 'Was ist los?'"

If anybody knows where Bob is, the Secretary will be glad to have him send in the information. We sincerely hope that nothing has happened to him.

A. M. Mutersbaugh, I, is a Captain, Company B, 533d Engineers, Camp Pike. He writes: "Has been a long time since I've seen or heard from you. Received the alumni bulletins regularly and read them with a great deal of interest. I have been in the army for over a year and while I'm having a good time and get a lot of pleasure out of my work, I'll be glad to get back to engineering work again. Of course as long as this war lasts I wouldn't swap my job with any civilian on earth. I think, and we all hope, that we will be across now in a few months. Best regards to all old friends and yourself. Just send my mail as usual to Lake Charles, and it will then be forwarded to me."

E. E. Smith, VII, is superintendent of the Lima Filtration Plant, Lima, Ohio. He claims there is little chance of getting into the war in Class III, and with bad eyes, and that it is getting lonesome.

Ken. Franzhein, IV, is in the United States Air Service, O. I. C., stationed at Ellington Field, Houston, Texas. He writes: "We are down here waiting to go overseas as soon as they will provide something for us to fly. Damned if I know when this will come about. In the meantime they have put me in charge of bombing at this field, and it is mighty interesting work. Regards to all the boys, and tell them that we expect to join them overseas soon."

G. E. Leavitt, II, is with the 9th Battery, Field Artillery O. T. C. Camp Taylor, Louisville, Kentucky. He writes: "I went to Camp Devens on May 15 and entered the 4th Officers' Training Camp. Was placed in infantry for first couple of weeks but was able to get into the artillery finally, and was transferred to Camp Taylor. I am enjoying the life very much. I had some trouble learning equitation at Devens, but I do my riding on wooden horses down here at Camp Taylor, and find them easier to handle. Tech had nothing on this camp when it comes to keeping a man busy, but, nevertheless, I never felt better physically in my life. I am sorry that I was not able to get this message to you sooner, but guess it will keep for a future edition of the REVIEW."

1914

E. J. CALLAHAN, *Secretary*, 14 Prospect Avenue, Lawrence, Mass.

ELMER E. DAWSON, JR., *Assistant Secretary*,
28 Washington Avenue, Winthrop, Mass.

The Tech of May 12 published the following about the death of George A. Beach:

To the Editor of The Tech:

In the death of George A. Beach, Class of 1914, Technology has lost one of her noblest sons. One of his classmates in writing to me said, "George Beach's death struck closer home than any of my personal losses from the war. He was one of the finest men I have ever known. It is terrible to realize that he is but one of the many thousands of the highest and noblest type of men who are dying for us. What a small offering one's own life is, when such men are giving theirs."

I have received a copy of Major Ryan's letter sent to Mrs. Beach, and, with her permission, I am enclosing a part of it, as I feel sure it will be of sad interest to all Technology men.

Most cordially yours,

(Signed) MRS. HENRY P. TALBOT.

Major Ryan's letter to Mrs. Beach is, in part, as follows:

"With the profoundest feeling of sympathy for you and sorrow for our loss, I wish to inform you of the death of your son, Private, First Class, George A. Beach, Aviation Section, S. E. R. C., a member of this command, on January 20, 1918.

"Your son served under my command since leaving the United States, and by his delightful personality, keenness for work and devotion to duty, proved himself a man, a soldier and a gentleman in every respect, and one worthy of the greatest respect and admiration by all with whom he came in contact.

"His death, which was instantaneous, was one of those almost impossible and wholly unavoidable accidents. He was piloting a machine flying over the training field. At the same time, another machine, piloted by 1st Lieut. William H. Cheney, with Lieut. Oliver Sherwood acting as observer, was also in the air. A very low cloud of fog blew over the field and closed around the machine piloted by Cheney. He turned to get out of the fog, and as the machine emerged, struck the machine operated by your son, who was also trying to avoid the fog. Both machines fell to the ground, a distance of about one hundred and fifty feet.

"The funeral was held from the Italian Military Hospital in Foggia, at two o'clock on the afternoon of the 21st, and was attended by troops and officers of the American, Italian, French and English armies. All the men were buried with full military honors."

From the Fort Collins, Col., *Express-Review*:

The people of Fort Collins paid a splendid patriotic tribute Sunday, January 27, to the memory of their first offering of this great war for world liberty, when they assembled at the college chapel in honor of the late George A. Beach, who was killed January 20 in northern Italy. The college chapel would not begin to hold the people anxious to do honor to the departed hero. It was a cold day, but the people came and not only occupied all the seats, but all the standing room, extending out into the halls. The Masons, of which organization the deceased was a member, marched in a body, nearly two hundred in number. The G. A. R. turned out in a body also. The program was excellently arranged, brief and very touching.

Prof. L. D. Crain presided and spoke of the life of the deceased, who was the son of Mr. and Mrs. Thomas Beach. He was born here in 1893. Passed through the grades of our public schools and the high school where he led his class and was graduated valedictorian. He attended the Massachusetts Institute of Technology, where he was graduated with honors. He was employed in South America and as soon as war was declared volunteered. His ability was soon recognized and he was

among the first sent to France. He made progress and was sent to Italy to help stop the Hun drive and had about completed his course when in a fog two large airplanes collided and he and two others were killed. Interment was made in sunny Italy.

Dr. C. A. Lory, in speaking in behalf of the college, said that when George Beach went to the Massachusetts School of Technology he felt that never had the West sent a man there who would better vindicate western training. He said he was not surprised that he was among the first to enlist, as he knew his spirit. He was peculiarly fitted for aviation and he taught us the value of making the best of our opportunities. He brings home the lesson of the war and we must make up our minds to pay the price of this war, just as he did. His letter, published a few days ago, was splendid and we cannot do better when we get home than to read it again. No man ever went from here with a brighter future, yet he gave it all.

The *Boston Globe* of May 19, 1918, prints the following:

Mr. and Mrs. David F. Roy of Marion announce the engagement of their youngest daughter, Mabel Edith, to Mr. Gerald W. Blakeley of Springville, N. Y. Miss Roy is a graduate of St. Mary's Episcopal School at Peekskill, N. Y., and of Quincy Mansion School. Mr. Blakeley was graduated from Oberlin College, 1910, and from Massachusetts Institute of Technology, 1914. He is a member of the Phi Beta Epsilon fraternity.

The marriage of another Technology graduate was recently announced, when Miss Margery C. Thornton, daughter of Mrs. George M. Thornton, of Pawtucket, R. I., and Albert T. Stearns, son of Mr. and Mrs. Albert H. Stearns of 19 Beaumont Street, Ashmont, were united in holy matrimony.

Miss Thornton is a direct descendant of Roger Conant of the Massachusetts Bay Colony, and has attended the Walnut High School.

Stearns was graduated from Amherst College in the class of 1911 and from the Institute in the class of 1914. He has been a member of the Chemical Department of the E. I. du Pont de Nemours & Company of Wilmington, Del., for about three years. He will take up his future residence at Nashville, Tenn.

The *Oregonian* of Portland, Ore., of March 20, 1918, printed the following about the death of John G. Kelly:

Through the official channels of the War Department word reached Portland March 19 of the death of 1st Lieut. John G. Kelly, of Company A, 10th Engineers, who was killed in an automobile accident in France on March 15.

Lieutenant Kelly was widely known in Portland and Oregon, and had entered upon a career of great promise in the engineering profession. One of his early achievements was the construction of the state fish hatchery at Bonneville. He was the son of Maj. George H. Kelly, of the Booth-Kelly Lumber Company, who also is in France, commissioned with the 20th Engineers, a forestry regiment.

WIDOW AND DAUGHTER SURVIVE

Today is the second anniversary of John G. Kelly's marriage to Miss Dorothy Sharp, daughter of Jesse R. Sharp, of 699 Prospect Drive. The widow of the young officer, with the infant daughter, Constance Patricia, has resided with Mr. and Mrs. Sharp since Lieutenant Kelly's departure for France.

Lieutenant Kelly left Portland in June, and was for some time stationed at Fort Riley, Kansas, later being transferred to Washington, D. C., for the course of training at American University. He sailed for France in September, was taken ill during the voyage and for some time was in a critical condition at a military hos-

pital in Southampton, England. Upon his recovery, shortly before Christmas, he rejoined his regiment in France, where it has been engaged in various lumbering projects.

FATHER IS IN ARMY

Further word is expected soon, with details of the accident in which Lieutenant Kelly lost his life. The father, Major Kelly, is now on detached duty, and is believed to be stationed in Paris. A short time ago the son was a guest at a banquet given by the officers of the 20th Engineers in honor of Major Kelly's fifty-first birthday.

Lieutenant Kelly studied at the University of Oregon, the Massachusetts School of Technology and the Oregon Agricultural College. He entered the practice of his profession with the Whitmer-Kelly Company as a civil engineer.

During college days he won note as an athlete, particularly for his ability as a wrestler. He was a member of the University Club and of the Multnomah Amateur Athletic Club.

He was thirty years of age and was born at Grants Pass, spending much of his boyhood at Eugene and in the employ of his father at various lumber camps. His mother and sisters now reside at Corvallis.

George H. Burrows is reported at 4th O. T. C., Camp Devens. He has just returned from the front where he was an ambulance driver and won the Croix de Guerre for bravery.

1915

WILLIAM B. SPENCER, *Secretary*,
544 North Grove Street, East Orange, N. J.

FRANCIS P. SCULLY, *Assistant Secretary*,
5 Exeter Park, Cambridge, Mass.

We can give no tribute great enough, pay no homage deep enough to honor the memory of our beloved classmates who are giving up their lives on the battlefields of France for the freedom of their homes and their country.

In a Boston paper of April 15, 1918, we found the following announcement:

Funeral services for the late Lieut. Franklin Temple Ingraham, the first Wellesley boy to die in the service of his country, were held today from the home of his parents, Mr. and Mrs. Franklin Benton Ingraham of Grove Street, Wellesley.

Lieutenant Ingraham, who saw service at the border with Battery A, enlisted with the Coast Artillery shortly after the declaration of war. He had been stationed at Spartansburg, Va., and was on his way home for his first furlough when he was seized with pneumonia. He died shortly after reaching home.

Lieutenant Ingraham graduated from Harvard in 1914, and received a degree from Technology the following year. He had recently passed his examination for aviation and expected to be called upon at the expiration of his furlough.

He is survived by his father, mother, a brother, Lieut. Paul Ingraham, and a sister.

Another news article informs us that Lieut. Louis W. Prescott, British Flying Corps, whose home is in Passaic, N. J., and who has been in service on the western front, has been missing since April 22, according to a cablegram from London:

Prescott was twenty-six years old and joined the British flying service last August at a training camp at Toronto.

The Technology War Service Auxiliary has sent us a request for information concerning Paul G. Vignal, whose death was announced in the April issue of the REVIEW. We print herewith the request in part:

"Thus far we have been unable to obtain any data concerning Paul G. Vignal, who was reported killed in action in France while leading a charge at Ypres. Even the date of his death is unknown to us. Have you any further information and can you furnish us with a photograph of him?

"The only address which we have for him is Nice, France, without any street and number."

We add our appeal to that of the War Service Auxiliary and hope that any one having information concerning Paul, his enlistment, home, relatives, a photograph, or who can aid us in obtaining information will promptly communicate either with the secretary or the Technology War Service Auxiliary.

We are prompted again to ask that every one in the class coöperate in keeping in touch with each other during these strenuous times of war. Send in your address, notes of what you are doing, and happenings to fellows whom you know.

Here is a letter from Bob Mitchell, in Buffalo, N. Y.:

It is some time now since I last bumped into you, in one of the canyons off lower Broadway. I used to see you quite often in those old haunts of mine and promised just as often to write you some dope. But you know how it goes,—a certain very torrid underground resort is paved with good intentions. Am now living at the University Club in Buffalo, where our honorable, persistent, insistent, assistant secretary also has his domicile, and lives, thrives and has his being. The qualities just mentioned, I believe, are responsible for this letter; the "honorable," however, is merely a complimentary prefix.

Well, the ways of the wicked still prosper. I guess when I last saw you I had just given up my position with the Oakley Chemical Co., and taken a second lieutenancy in the Army Ordnance Corps. Since then I've had a varied career. For a while last fall I handled oil contracts,—sperm and porpoise jaw oils for rifles, range finders, etc., in New Bedford. I met W. A. Robinson, of one of the classes, quite a way back, and had some very enjoyable times with him at the Wamsutta Club, also some interesting visits with the whalers.

Also saw Harry Seymore, II, of 1916, I think, at Fort Rodman several times; Harry is first lieutenant, Coast Artillery.

Mineral oils in the oil fields of western Pennsylvania and Ohio kept me busy through the winter. It is a cheerless job out there amid the derricks, wells, pumps, tanks, and refineries. Everything there smells, tastes, feels and looks oily—crude oily—which is worse than ordinary oily. Technically, however, the pumping, collecting and refining of the crude was a very interesting proposition. The army is certainly a large consumer of oils of all kinds.

I was next at Fort Meyer and in Washington for a short time, doing experimental work on a new method for removing cupro-nickel fouling from rifle barrels, and then went to Frankford Arsenal for a time to carry on further work on this same proposition. Saw Kellar, Mumford, and Houghton while there; they are all lieutenants in Ordnance.

After successfully proving out the new method and getting it adopted, went back to Washington and was there for a month in February and March, assisting the Commissioned Personnel of the Ordnance Department in examining candidates for commissions in Ordnance, for technical work. I interviewed several Tech men while on this work and heard some mighty interesting life stories and experiences.

Just about this time I expected to get across in the Ordnance Base in France, but had my hopes busted into small pieces by being ordered up to Buffalo to handle the production of the chemicals necessary for the process for removing metal fouling which I worked upon at Frankford Arsenal.

Since coming up here I have been given charge of all inspection of Ordnance Chemical work in the Rochester Ordnance District, taking in mostly electrolytic work in the vicinity of Niagara Falls.

There are several Tech men living here at the club, as Scully has probably told you. Jerry Fallon, '14, and I are rooming together. It is quite an advantage to be with some one who understands and appreciates the glories of good old Boston, and is willing to talk about them.

Saw Metz while over in Rochester the other day. He is a second lieutenant, Ordnance, and is inspecting some kind of steel goods or hardware.

Hope to write to you soon from across where all the excitement and adventures are. All my attempts to break loose and get into the field have so far been stalled, but I'm still hopeful of getting an actual whack at the hateful "Hun" at close quarters.

We all appreciate the following news from Ted Brown, in France, dated May 18, 1918:

I should have dropped you a line months ago, but as you can well imagine my time is pretty well taken up. (One guess as to how long I have been using a typewriter.) However, I can probably write a much more interesting letter now than I could have before.

I left the States last fall and have been over here with the First Division A. E. F. ever since. We landed at a port of entry, and received our 30 3-ton Riker trucks a few days later. Orders came through at the same time to proceed at once overland with the trucks to some place unknown to any of us except the C. O.

Believe me, "Bill," that was some trip, one I shall never forget. Just imagine touring through France at a rate of about 12 miles an hour, exactly fast enough to see the country, the people, and the wonderful old buildings. It made me wish I had paid more attention to my French history in high school. We were the first American troops to pass through a great deal of the country, particularly the small towns, and we were certainly received in grand style. We were covered with flowers and given more fruit than we could eat. It makes a fellow feel sort of funny inside, but at the same time glad he is over here.

We reached our destination at the front on time, and immediately went to work doing all the transportation for the First Division. Our billets were typical of all those in France. Ours had formerly been used as a prison for Algerian troops, and hence was more or less inhabited before we arrived, but after a fellow has been out all night for several nights in succession he does not mind the dear little "shirt hounds." The work from now on began to pile up and every man in the company worked to full capacity. I was holding the job of company clerk in the day time, and then very often had to be up all night on the trucks going to the front. It was mighty interesting work, but kind of got your nerve after a while. I remember well one of these nights in particular. I had gone to bed, and to sleep, when at about 12 P.M. I was shaken out, and told that I would have to take up a "75." I got to the front at about 2 A.M. and helped put the gun into the gun pit. All the time the shells from the guns in that battery were putting them over to Fritz, and I expected any minute that Fritz would begin to send a few back. If he had, it would have been good-night to us, all out there in the open. It certainly does a fellow good to sit there in the truck waiting for orders while shells are going over in both directions. You soon get so you can tell the difference between those coming and those going. The latter sound much louder usually, with their boom-whiz-z-z-z, than the former with their whiz-z-z-z-BOOM. All this is lighted up by the ghastly star bombs which seem to reach into every nook and light it up, and you can just imagine the glee with which some sniper will pick you up.

In this same town we received a good many visits in the night from the boche planes. One night in particular he dropped a load of 400-lb. bombs on us and I sure

thought my time had come. If there is anything which puts the fear of God into a man it is to have an invisible plane floating around overhead sounding all the time as though it were coming lower and nearer, and dropping bombs in a steady stream. I have never been in an earthquake but I have a good idea of what it must seem like.

We had been on this front a good many weeks when we, meaning the whole division, received orders to move at once. Once more I traveled over a good part of France in a truck seeing people and new cities. In a few days we reached the front again, and a front that made the one we had just left seem like a rest area.

So far I have not met any '15 men and very few Tech men. Wiley and Brooks, who were both '17 I think, are with the Engineers of this Division and are both lieutenants. If any of the boys from the class are over here in this vicinity I sure would appreciate it if you could give me their addresses.

Remember me to the boys and tell them to drop me a line, as the only thing we have to look forward to is the mail we get from home. I am looking forward to the time when we will all get together again when its "over, over there." Address: T. G. Brown, Sgt. 1st Class, Q. M. C., Division Q. M. Detch., 1st Div., A. E. F.

Here is another letter telling of Henry Lieb's activities:

Just a couple of lines to say that I'm still doing business. For the past year and two months my time has been occupied about as outlined below. I enrolled as ensign in the Naval Reserve and worked in the Brooklyn Navy Yard for several months. Then I succeeded in getting on the *Agamemnon* and made a number of round trips in her, beginning early last fall. Had quite a protracted stay on the other side on one occasion, and wandered up to Paris where I ran across several Tech men, none of 1915 however, and visited the University Union. Was also in England and could have gone to London but for an attack of grippie. On each trip we had the pleasure of carrying over one member of 1915 among the army officers; it was good to see them. Other interesting details and occurrences are omitted for the present. About the first of the year I was made lieutenant (J. G.) and about a month ago was transferred to the staff of Admiral Gleaves.

Have seen George Urquhart and Ted Spear several times since I got back. As you probably know, George has a daughter. I understand Ted is going out to Michigan on some government job. That is about all the dope I have, having been more or less detached from civilization for the better part of the year.

Here is luck to you and all the rest.

Jim Tobey has sent in his latest news from the aviation field, Gerstner Field, Lake Charles, La.:

I am afraid you will have some difficulty in keeping track of my numerous leaps about the country. Since I wrote you from Camp Sherman, Ohio, where I was in the United States Health Service, I have been transferred to the Sanitary corps of the army as a first lieutenant. I am now stationed here at Gerstner Field in Louisiana as the sanitary inspector and am busy fighting large, vicious mosquitoes, and taking rides in aeroplanes. Before coming here I was at Camp Greenleaf, Fort Oglethorpe, Ga., for six weeks, together with several other Tech men.

Kindly send me any class announcements, not that I could possibly attend anything, but I can read them, smile sardonically, and be relieved a little from the deadness of this honorable camp.

Mr. Walborg Cedarstrom has kindly sent us the letter which follows concerning his brother and our classmate Hjalmar Cedarstrom:

In accordance with your request I am giving you a few facts concerning my brother. He enlisted on August 6, in New York, with the Signal Corps; was sent to Kelly Field, Texas, two weeks later for training, and left this country about October 25. He is now a sergeant with the 96th Aero Service Squadron (A. E. F.) at a school somewhere in France.

These men, we have lately learned, are in the national military or naval service:

Charles Rosenthal, Priv., Infantry or Ordnance, Camp Sherman.

Thomas C. Pond, 1st Lieut., at Camp Lee.

Nelson Stone, O. T. C., Fort Niagara, N. Y.

L. L. Travis, priv., O. D., 163d Depot Brigade.

We are glad to announce that Melville Fuller Coolbaugh is a professor of chemistry, Colorado School of Mines.

Te Chun-Hsi, Tayeh, China, B.S., M. I. T. 1915, M.S., 1916 Columbia University, is at present secretary of the Tayeh Iron & Steel Works.

Now read our social news. As ever, spring seems to be the time for honeymoons.

A. A. Cook, whose engagement to Miss Marcella Jane Russell was announced in June, 1917, was married on Tuesday, June 25, at Dorchester, Mass. They will be at home after September 1, at 422 Philippi Street, Clarksburg, West, Va.

The class has a new member, Arthur MacLennan Brigham, son of Mr. and Mrs. Everett R. Brigham. Congratulations, Everett. Brigham's present address is 58 Glendale Street, Everett, Mass.

When we heard that Loring Hall was returning from the far East, we thought at first it was only his love for the U. S. A. bringing him back—but we now learn that it was a Dorchester girl, Miss Ruth Faxon Arnold, whose engagement to Loring was announced on April 13, 1918. Loring is now with Isaac Prouty & Sons, shoe manufacturers of Spencer, Mass., as Cost Engineer.

Ensign Royal W. Wetherald, U. S. N. R. Flying Corps, and Miss Rosemonde Wyman, of New York, have announced their engagement. Wetherald's present station is at Fort Worth, Texas.

The engagement has been announced of Miss Marian Cutler of Brighton to Fiske Reed Jones.

Clifton Jacobs was married to Miss Alice Seavey on April 17, 1918.

Dean Fales received his degree with 1915, but we understand has been affiliated with another of the classes of which he was a member. However, for the benefit of the many fellows who knew Dean we are glad to print the news of his engagement to Miss Lucille Kundson of Dorchester, Mass.

Louis F. Quirk was married on April 22 to Miss Henrietta Darcey.

Mr. and Mrs. James W. Harris of Rumford, Me., announce the engagement of their daughter, Frances, to Mr. Theodore F. Spear, son of Mr. and Mrs. Millard F. Spear of Commonwealth avenue, Allston. Miss Spear was graduated from Lasell in the class of '15 and was a postgraduate of class '16. She was president of her class both years, and captain of the crew. Mr. Spear is a graduate of M. I. T., '15, as chemical engineer and is now in the United States war gas investigation service. He is a member of the A. T. O.

Fraternity, and of the Tech Club of New York. The wedding will take place in the autumn.

The marriage was announced June 8, 1918, of Stuart W. Gurney of Brockton and Miss Helen L. Chase of Milford.

Kenneth Desprès Kahn, research chemist and metallurgist for the Cleveland Brass Manufacturing Company, is now assistant chemical engineer for the Bureau of Mines Experiment Station, American University, Washington, D. C. His work is with the Division of Small Scale Manufacturing of war chemicals.

Sarkis M. Bagdoyan, I, is a private in Co. F, 301st Infantry, Camp Devens, Mass.

1916

RUSSELL H. WHITE, *Alumni Council Representative*,
U. S. N. A. D., University of Washington, Seattle, Wash.

The temporary class secretary, Russell H. White, was called to Seattle on such short notice that he was unable to edit the large amount of material, in the shape of letters and notes, which has been accumulating since Christmas. The editor of the REVIEW was also unable to edit these notes, partly through his unfamiliarity with the material, but more for lack of time. We print here such notes of '16 men as have come direct to the Alumni office.

Nineteen hundred sixteen men are to continue to send material to White at the address above in Washington. He will prepare material sent in the summer for publication in November. *In the meantime*, will any member of the class of 1916 who is to be in or near Boston this summer give such time as will be necessary to classifying the 1916 material already in Cambridge, making new address lists, and, from the letters already sent, preparing notes for the November issue of the REVIEW? Unless this is done, a great deal of information of great interest to '16 men may miss being published.

What '16 man has got the class spirit for this job?

Oden B. Pyle who is with the 33d Engineers at Camp Devens, Mass., has recently announced his engagement to Miss Hazel M. Fletcher of Westford, Mass.

Edward F. Hewins has recently married Miss Eleanor Chamberlain.

The Boston *American* of May 31, 1918, printed the following account of the death of Lieutenant Alfred Wyman:

Lieut. Theodore Alfred Wyman, one of the five sons of Mrs. Flora M. Wyman, 58 Summer Street, this city, was killed in an aeroplane accident in England on the same day that his mother received a cheerful letter from him. He wrote that he was happy because he had "his wings" and expected to be in action in France soon.

Mrs. Wyman, who was overcome by the blow, received this cable from the British Minister of the Royal Air Service:

"Regret to inform you that Lieut. Theodore Wyman was killed in an aero accident in England, May 27. We express our sympathy."

Young Wyman, who was twenty-five years old, was graduated from Fitchburg High School in 1909 and from Massachusetts Institute of Technology in 1915.

He endeavored to get into the United States army soon after war was declared and took examinations for a commission in the cavalry branch. While waiting to hear from Washington he took a trip to Canada and applied for a commission in the Royal Flying Corps, in which he was accepted August 1. Later he was informed that he had been commissioned a lieutenant in the United States army but decided to remain in the British service, believing that it would not be right for him to accept the United States commission after having accepted the appointment in Canada.

Lieutenant Wyman went to England in January and successfully passed the tests in the ground and air school.

The whole city mourns for him and sympathy for the family is widespread. The Wymans have five sons in the service: Lieutenant Theodore, Lieutenant Philip and Franklin H., all in the United States air service, Kendall, an army ambulance driver, and Donald, the "baby" of the family, who recently joined the Royal Flying Corps.

The local exemption board refused to allow the sixth son, Mark, to join the colors. He was of draft age, but at the initiative of the officials was exempted.

Mrs. Wyman is a prominent Red Cross worker, and in a recent parade led the mothers' division, in which women, carrying service flags for sons in service, marched.

Notice was received at the office of the *REVIEW* on April 13, 1918, of the death of Arthur C. Tedford on July 20, 1916.

The Boston papers of April 13, 1918, published the death of Lieut. Franklin Temple Ingraham at his home April 11, 1918. Death was due to pneumonia.

A newspaper clipping from the Boston *Globe* of April 7, 1918, is of interest to the class:

The marriage of Miss Beatrice Lawrence Allen, daughter of Mr. and Mrs. Horace G. Allen of 1925 Commonwealth Avenue, Brighton, and Lieut. David Longfellow Patten, son of Dr. Charles C. Patten of Machias, Me., formerly of Boston, was solemnized last Tuesday afternoon in All Saints' Episcopal Church, Brookline, by the rector, Rev. Daniel D. Addison. Miss Eleanor Wyllys Allen, sister of the bride, was maid of honor, and another sister, Miss Rosamond Allen, and Miss Katherine Vallandigham of Brookline were bridesmaids. The bridegroom was attended by his brother, Mr. Merrill C. Patten, as best man. The ushers were Ensign Wingate Rollins, Lieut. Donald Crowell, Lieut. Milton L. Dodge, Lieut. Harold K. Neuman, Mr. John Nash and Mr. Adolph H. Wenzel. After the ceremony a reception was held at the home of the bride's parents. Lieutenant and Mrs. Patten have concluded a brief honeymoon trip, as the former must report for duty tomorrow at Fortress Monroe, Va. Lieutenant Patten is a graduate of Tech and has been commissioned in the Regular Army.

After enlisting last December, F. D. Ross is at the ground school for aviators at the Massachusetts Institute of Technology. He expects to go eventually to a flying school and to be commissioned in the aviation section, signal corps. Ross studied three years at the Massachusetts Institute of Technology and then took a position with a New York house, specializing in fire prevention apparatus for factories.

Shin Tao Tai, for the past two years with the United Shoe Machinery Company at its Beverly plant, has finished his training,

having qualified as a practical machinist. After spending two months visiting the larger cities in the United States he will return to China to engage in the machinery business.

Charles S. Makepeace, '16, is an ensign in the United States Navy. The address is U. S. S. *Florida*, care Postmaster, New York City.

Under date of April 24, Herbert W. Ellis, corporal, Co. G, 2d Depot Bn., S. C., writes:

Please send any correspondence "Care of F. H. Ellis, 73 Park Street, Rockland, Mass." I am now a corporal in Signal Corps, regular army, and any mail will be forwarded to me from the above address.

The acting secretary is not responsible for these notes so cannot prevent the insertion of the following taken from the *Seattle, Washington, Times* of May 3, 1918:

One of the faces familiar at the Massachusetts Institute of Technology will be missed next week with the departure of Russell Hubbard White, S. B., '16, for duties that call him to the far Northwest. Since the establishment at the Institute of the naval aviation detachment, White has been instructor in navigation in this special school.

The Navy Department is about to establish at Seattle in connection with the University of Washington a school of aeronautics like that at the Institute of Technology, and to this White, who will be made ensign, is detailed for instructor in navigation.

White is a Boston boy and a graduate of the Chauncy Hall School. He entered Technology in September, 1912, and from that time until his graduation was interested not only in his studies, but in student activities. He was one of the cross country team of his earlier years and made a good showing in some of the events, among them the mile run. He was also active in the successive Tech shows, having been principal in those given during his student years. He was stage manager in that of 1914 and with O. R. Freeman of Helena, Mont., wrote the comedy of 1916, entitled "M-34." He rendered valuable service to the Institute at the great fêtes that celebrated the dedication of the new buildings, this being the year of his graduation.

White received his degree in June, 1916, and on the establishment at the Institute of the naval aviation detachment was appointed instructor in navigation. His work here will be taken up by Prof. George L. Hosmer of the department of civil engineering, who specializes in astronomy.

1917

WALTER L. MEDDING, *Secretary*,
206 Ferry Street, Malden, Mass.

ARTHUR E. KEATING, *Assistant Secretary*,
893 Seaview Avenue, Bridgeport, Conn.

No report received from the secretary.

The class has a number of engagements and marriages to its credit.

A home wedding of interest occurred in Allston last evening, when Constance Woodbury, daughter of Mrs. C. H. Woodbury, 592 Cambridge Street, and a member of the Smith class of '17, was

married by Rev. John O. Haarvig of Mansfield, a Congregational pastor, formerly of Allston, to Barnett F. Dodge, Tech, '17. The maid of honor, Miss Adah Richard, and the ushers were Smith classmates.

The groom is a chemical engineer employed by the du Ponts in munitions work and the residence of the couple will, for the duration of the war, be in Williamsburg, Va.

The New York *Evening Journal* of May 25, 1915, prints the following item:

An interesting wedding of yesterday was that of Miss Mary Caroline Hough of Jacksonville, Fla., and Howard Grover Mann of Boston, Mass. The ceremony was performed in Trinity Church Chapel by the Rev. Dr. M. H. Gates and was witnessed by a few intimate friends. After a brief wedding trip the couple will live in this city.

The bride wore a travel costume and was attended by Miss Anne Oates, of South Carolina, and Miss Margaret Matthews of Lexington, Ky. The best man was Wesley McARDell of New York. The bride was given away by Lieut. Arnold Cady, R. C.

Miss Hough is the daughter of Alveron Sanford Hough, editor of the Florida *Times-Union*, and is well known in physical education circles here. Mr. Mann was graduated from the Massachusetts Institute of Technology and is now connected with the Ordnance Department of the United States Army. He is a member of the Phi Beta Epsilon fraternity, and the Black Rock and Tech clubs.

From the Cincinnati *Times Star*, May 27, 1918, comes this news:

Announcement is made of the engagement of Miss Gertrude Russell Langdon, eldest daughter of Mr. and Mrs. Harry E. Langdon of Forest and Eden Avenues, Avondale, to Assistant Naval Constructor Garland Fulton, U. S. N. Miss Gertrude is one of the prettiest girls in local society, and has been very popular since her coming out party, a dinner dance of three seasons ago.

Frank H. Shattuck, of Florida Street, Springfield, announces the engagement of his daughter, Doris Catherine, to Lieut. Henry L. Miller of Manchester, N. H. Lieutenant Miller is a graduate of the Massachusetts Institute of Technology, class of 1917, and a member of the Theta XI fraternity. He is in the Coast Artillery Corps of the regular army and is stationed at the headquarters of the coast defenses of Boston at Fort Warren.

Edwin D. Reynolds, 317 Adams Street, Macon, Ga., has been married recently to Miss Edna M. Sully of Brooklyn, N. Y.

Capt. Oscar Peterson enlisted last June after having secured his graduation certificate from Technology. He was made a second lieutenant in October and a captain in November. He is assigned to Camp Glenn Bernie, Maryland, with the 601st Engineers Corps.

From *The Tech*:

Lieut. LeRoy Amos Swan, '17, Course II, was instantly killed at the Wilbur Wright aviation field between Springfield and Dayton, Ohio, when the airplane in which he and Lieut. Frank S. Peterson were flying collapsed in mid-air. At an altitude of about 10,000 feet the pilot lost control of his machine after going into a swift nose dive.

The machine failed to straighten out from the nose dive and fell through the clouds, the wings collapsing. At the height of about 400 feet one of the men either fell or jumped from the fusilage. The other man was caught in the wreckage of the machine. Both bodies were unrecognizable.

Mr. Swan was a member of the Sigma Alpha Epsilon Fraternity, Osiris, Theta Tau, Walker Club, Masque, Beaver and Mechanical Engineering Society while at Technology.

Another quotation from *The Tech*:

ROPER '17 KILLED

INSTITUTE ALUMNUS MEETS DEATH IN AIRPLANE ACCIDENT

A cablegram from London, conveying the sad news that Second Lieut. George Roper, Jr., '17, of the British Flying Squadron, was reported as killed in an airplane accident on Saturday, May 25, was received recently by his parents, Mr. and Mrs. George Roper, of 509 North Fourth street, Steubenville, Ohio.

The cablegram, which read that the lieutenant was "reported killed," was seized upon by his grief-stricken parents as one ray of hope that he might still be alive, or that there had been some mistake, and Mr. Roper communicated with the British consul at Cleveland in the hope of securing through him more definite information concerning his son.

The cablegram from London read as follows:

"George Roper:

"Deeply regret to inform you that Second Lieut. George Roper, Royal Air Force, is reported to have been killed on May 25, aero accident. The Air Council express their sympathy.

"Secretary Air Ministry."

This message indicated that Lieutenant Roper was killed in England, and, although details are lacking, it is presumed that he went to his death in a plane accident during a practice flight. The young aerial officer had been serving in France, but was recently detailed to England as an escort for a superior officer when his instructor, with an observer, was killed in a flight "Somewhere in France."

Whether or not his brother, Lieut. Kenyon Roper, '18, of the U. S. Artillery of the American Expeditionary Force, was in England at the time of his brother's death, is not known here, but a message received several days ago was to the effect that Kenyon had obtained a leave of absence and that the brothers would spend ten days together. It is possible that the fatal accident occurred during their vacation from service.

Lieut. George Roper, Jr., was twenty-five years of age on May 15. He was born in Steubenville, Ohio, the son of George and Jean K. Roper. He was educated in the public schools of that city, graduated from Steubenville High school and later from the MacKenzie School on the Hudson, and the Tome Institute. He afterwards entered Technology, and in May of 1917 was graduated with a degree in mining.

It was while in the Institute that he responded to the war call. In April of last year, before his graduation, he took the officers' examinations and received his commission as lieutenant in the U. S. Signal Corps. He sought to enter the service immediately, but met with so many delays that in August last he went to the British Flyers, enlisting at Toronto, Canada. He was readily accepted and placed in training immediately at the Leaside Training Camp near Toronto. Later he was sent to Fort Worth, Texas, where with other British flyers he received a six weeks' training course in gunnery. He was allowed a ten days' leave of absence after qualifying for the service and receiving his commission, and came home to visit his parents in January. That same month he reported at Halifax for duty and was detailed to overseas service.

He saw active service in France and was making rapid strides as an expert airman. The death of his captain, while making a flight in his machine, was detailed to Roper's parents in a recent letter, and he sent word that he had been detailed to escort the body to London and represent the army at the funeral.

While at the Institute Roper was active in many of the undergraduate affairs.

He was treasurer of the Mining Engineering Society in his senior year, having been a member of the society for three years; besides the Walker Club, he was a member of his class football team. In recognition of his ability and deservedness, his class elected him to its Technique Electoral Committee, and the Committee honored him further by making him Societies Editor of *Technique*. Roper was a Chi Phi man, noted for his marked ability in his studies and his dogged determination to succeed in whatever he undertook, as he showed by his supreme sacrifice for democracy.

1918

DAVID M. MACFARLAND, *Secretary*,
626 South High Street, West Chester, Pa.

No report received from the secretary, and few clippings have come to the office since the large number were sent the secretary with the editor's letter.

Announcement has recently been made of the engagement of Miss Corina Codman Ely, daughter of Mrs. Cora Codman Ely of Boston, to Mr. Hall Nichols, '18, son of Major and Mrs. Edward H. Nichols, also of Boston. Miss Ely made her debut in 1916 and is a member of the Sewing Circle of that year. She has devoted all of her time during the past year to Red Cross work.

Mr. Nichols prepared at Harvard and was graduated from the mechanical engineering course at Technology this year. He has just left to attend the Engineer Reserve Officers' Training Camp at Fort Lee, Virginia, and the ceremony will probably not take place until after the war.

From the Minneapolis, Minn., *News* of June 1, 1918, is the following:

Announcement is made of the marriage of Miss Stella Kimmel Harp, daughter of Mr. and Mrs. Charles H. Harp of Marshall Avenue, St. Paul, to De Ross Salisbury. The wedding, which was a very quiet affair, took place Monday in Indianapolis and was attended only by the bride's parents and a few intimate friends.

Mr. and Mrs. Salisbury will be at home after June 15 at 93 Bruce Avenue, Yonkers, N. Y.

The bride was graduated from the University of Minnesota in the class of 1913 and received her M.A. degree at Wellesley in 1916. The bridegroom is a graduate of the Massachusetts Institute of Technology.

Word has come to the REVIEW office from the Tech Bureau of Paris, that James Councill Wooten, III, is lieutenant in the 1st Air Squadron, A. P. O., 703, A. E. F., France.

The Providence, R. I., *Journal* prints the following sad news:

Thomas H. Angell of 301 County Street, Attleboro, received a telegram last evening informing him that his son, Lieut. Cyril Angell, was killed in action in France last Tuesday. Lieutenant Angell was a member of the Aviation Corps. He was twenty-two years old and a native of Fall River, but had lived in Attleboro the past four years.

He was a student at the Massachusetts Institute of Technology and after a course of aviation there was sent to Texas, where he studied flying under the late Vernon Castle. He was recently sent overseas and had been flying at the front about two weeks.